

SONY[®]

TRINITRON[®] COLOR VIDEO MONITOR

BVM-8045QD

CHASSIS NO. SCC-E96K-A

BVM-9045D

CHASSIS NO. SCC-F09K-A



OPERATION AND MAINTENANCE MANUAL

1st Edition

Serial No. 2000001 and Higher (ALL MODELS)

⚠ WARNING

This manual is intended for qualified service personnel only.

To reduce the risk of electric shock, fire or injury, do not perform any servicing other than that contained in the operating instructions unless you are qualified to do so. Refer all servicing to qualified service personnel.

WARNING!!

AN ISOLATION TRANSFORMER SHOULD BE USED DURING ANY SERVICE TO AVOID POSSIBLE SHOCK HAZARD, BECAUSE OF LIVE CHASSIS.
THE CHASSIS OF THIS RECEIVER IS DIRECTLY CONNECTED TO THE AC POWER LINE.

SAFETY-RELATED COMPONENT WARNING!!
COMPONENTS IDENTIFIED BY MARK **⚠** ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY. CIRCUIT ADJUSTMENTS THAT ARE CRITICAL TO SAFE OPERATION ARE IDENTIFIED IN THIS MANUAL. FOLLOW THESE PROCEDURES WHENEVER CRITICAL COMPONENTS ARE REPLACED OR IMPROPER OPERATION IS SUSPECTED.

ATTENTION!!

AFIN D'EVITER TOUT RISQUE D'ELECTROCUTION PROVENANT D'UN CHÂSSIS SOUS TENSION, UN TRANSFORMATEUR D'ISOLEMENT DOIT ETRE UTILISÉ LORS DE TOUT DÉPANNAGE. LE CHÂSSIS DE CE RÉCEPTEUR EST DIRECTEMENT RACCORDÉ À L'ALIMENTATION SECTEUR.

ATTENTION AUX COMPOSANTS RELATIFS À LA SÉCURITÉ!!

LES COMPOSANTS IDENTIFIÉS PAR UNE TRAME ET PAR UNE MARQUE **⚠** SUR LES SCHÉMAS DE PRINCIPE, LES VUES EXPLOSÉES ET LES LISTES DE PIÈCES CONT D'UNE IMPORTANCE CRITIQUE PUR LA SÉCURITÉ DU FONCTIONNEMENT. NE LES REMPLACER QUE PAR DES COMPOSANTS SONY DONT LE NUMÉRO DE PIÈCE EST INDICÉ DANS LE PRÉSENT MANUEL OU DANS DES SUPPLÉMENTS PUBLIÉS PAR SONY. LES RÉGLAGES DE CIRCUIT DONT L'IMPORTANCE EST CRITIQUE POUR LA SÉCURITÉ DU FONCTIONNEMENT SONT IDENTIFIÉS DANS LE PRÉSENT MANUEL. SUIVRE CES PROCÉDURES LORS DE CHAQUE REMPLACEMENT DE COMPOSANTS CRITIQUES, OU LORSQU'UN MAUVAIS FONCTIONNEMENT EST SUSPECTÉ.

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SECTION 1 OPERATING INSTRUCTIONS

This section is extracted
from operating instructions

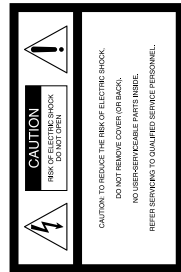
SONY
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 **Trinitron**
OPERATION MANUAL Japanese/English
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WARNING

To prevent fire or shock hazard, do not expose the unit to rain or moisture.

To avoid electrical shock, do not open the cabinet. Refer servicing to qualified personnel only.



This symbol is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

**AVERTISSEMENT**

Afin d'éviter tout risque d'incendie ou d'électrocution, ne pas exposer cet appareil à la pluie ou à l'humidité.

Afin d'éviter tout risque d'électrocution, garder le coffret fermé. Ne confier l'entretien de l'appareil qu'à un personnel qualifié.

WARNING

Um Feuergefahr und die Gefahr eines elektrischen Schläges zu vermeiden, darf das Gerät weder Regen noch Feuchtigkeit ausgesetzt werden.

Um einen elektrischen Schlag zu vermeiden, darf das Gehäuse nicht geöffnet werden. Überlassen Sie Wartungsarbeiten stets nur einem Fachmann.

ADVERTENCIA

Para evitar incendios o el riesgo de electrocución, no exponga la unidad a la lluvia ni a la humedad.

Para evitar descargas eléctricas, no abra la unidad. En caso de avería, solicite los servicios de personal cualificado.

ATTENZIONE

Per evitare incendi o cortocircuiti, l'apparecchio non deve essere esposto alla pioggia o all'umidità.

Per evitare scosse elettriche, non aprite l'apparecchio. Per le riparazioni rivolgetevi solo a personale qualificato.

CAUTION:

Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer. Discard used batteries according to the manufacturer's instructions.

ATTENTION

Il y a un risque d'explosion si la pile est mal insérée. Remplacer la pile uniquement par une pile de même type ou de type équivalent recommandé par le fabricant. Jeter les piles usées conformément aux instructions du fabricant.

VORSICHT:

Es besteht Explosionsgefahr, wenn die Batterie inkorrekt eingelegt wird.

Es darf nur eine identische oder eine vom Hersteller empfohlene Batterie des gleichen Typs eingesetzt werden. Entladene Batterien sind nach den Anweisungen des Herstellers zu entsorgen.

PRECAUCION

Peligro de explosión en caso de haberse instalado incorrectamente la batería.

Cambie sólo por una del mismo tipo o especificaciones equivalentes, de entre las recomendadas por el fabricante. Las baterías viejas se deben eliminar siguiendo las instrucciones del fabricante.

ATTENZIONE:

Pericolo di esplosione se la pila viene sostituita scorrettamente. Sostituirla solo con un'altra uguale o di un tipo equivalente consigliato dal fabbricante. Gettare via le pile usate secondo le istruzioni del fabbricante.

Note

The socket-outlet should be installed near the equipment and be easily accessible.

Remarque

La prise doit être près de l'appareil et facile d'accès.

Hinweis

Zur Trennung vom Netz ist der Netzstecker aus der Steckdose zu ziehen, welche sich in der Nähe des Gerätes befinden muß und leicht zugänglich sein soll.

Nota

La toma mural debe estar instalada cerca del equipo y debe accederse a ésta con facilidad.

Nota

La presa di corrente deve essere situata vicino all'apparecchio e deve essere facilmente accessibile.

WARNING: THIS WARNING IS APPLICABLE FOR USA ONLY.

If used in USA, use the UL LISTED power cord specified below.

DO NOT USE ANY OTHER POWER CORD.

Plug Cap

Parallel blade with ground pin (NEMA 5-15P Configuration)

Cord

Type SVT, three 16 or 18 AWG wires

Length

Less than 2.5 m (8 ft 3 in)

Rating

Minimum 10 A, 125 V

Using this unit at a voltage other than 120V may require the use of a different line cord or attachment plug, or both. To reduce the risk of fire or electric shock, refer servicing to qualified service personnel.

For the customers in the USA

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

You are cautioned that any changes or modifications not expressly approved in this manual could void your authority to operate this equipment.

The shielded interface cable recommended in this manual must be used with this equipment in order to comply with the limits for a digital device pursuant to Subpart B of Part 15 of FCC Rules.

Für Kunden in Deutschland

Dieses Produkt kann im kommerziellen und in begrenztem Maße auch im industriellen Bereich eingesetzt werden.

Dies ist eine Einrichtung, welche die Funk-Einstörung nach Klasse B besitzt.

Voor de klanten in Nederland

Bij dit product zijn batterijen geleverd. Wanneer deze leeg zijn, moet u ze niet weggooien maar inleveren als KCA.

• Dit apparaat bevat een Li-Ion batterij voor memory back-up.

• De batterij voor memory back-up is vastgeboldeerd op de BC printplaat BAT1.

• Raadpleeg uw leverancier over de verwijdering van de batterij op het moment dat u het apparaat bij einde levensduur afhandelt.

• Gooi de batterij niet weg, maar lever hem in als KCA.

Note

Be sure to use the supplied power cord for this monitor, or this monitor may not conform with the FCC Rules or EEC Directive 89/336/EEC.

Remarque

Utiliser le cordon d'alimentation fourni pour ce moniteur, sinon il pourrait ne pas être conforme aux règles FCC ou à la directive CEE 89/336/EEC.

Hinweis

Dieser Monitor darf ausschließlich mit dem mitgelieferten Netzkabel betrieben werden, weil andernfalls der Monitor nicht mehr die FCC-Vorschriften oder die EG-Richtlinie 89/336/EEG erfüllt.

Nota

Utilice sin falta el cable eléctrico que viene con este monitor, de lo contrario el monitor puede no cumplir con los reglamentos de la FCC o de la directiva 89/336/EEC de la Comunidad Europea.

Nota

Assicurarsi di usare il cavo di alimentazione in dotazione per questo monitor, altrimenti il monitor può non essere conforme alle norme FCC o alla Direttiva CEE/89/336.

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The wire which is coloured blue must be connected to the terminal which is marked with the letter N or coloured black. The wire which is coloured brown must be connected to the terminal which is marked with the letter L or coloured red. Ensure that your equipment is connected correctly. If you are in any doubt consult a qualified electrician.

Achtung – bei Installation des Geräts in einem Gestell:
a) Erhöhte Umgebungstemperatur bei Betrieb
 Wird das Gerät in einem geschlossenen Gestell oder einem Gestell mit mehreren anderen Geräten installiert, kann die Umgebungstemperatur um das Gestell höher sein als die normale Umgebungstemperatur im Raum. Achten Sie daher bitte besonders darauf, das Gerät in einer Umgebung zu installieren, in der die Temperatur nicht über die vom Hersteller angegebene Umgebungstemperatur von 0 bis 35 °C (32 °F bis 95 °F) ansteigt (T_{ma}).

b) Reduzierte Belüftung
 Das Gerät muß so im Gestell installiert werden, daß eine Belüftung gewährleistet ist, die für den sicheren Betrieb des Geräts erforderlich ist.
c) Mechanische Belastung
 Das Gerät muß so im Gestell installiert werden, daß nicht durch eine ungleichmäßige mechanische Belastung Unfallgefahr entsteht.

d) Überlastung der Stromkreise
 Der Anschluß des Geräts an das Versorgungsnetz erfordert sorgfältige Planung. Bitte beachten Sie insbesondere die Auswirkungen, die eine Überlastung der Stromkreise im Hinblick auf den Überspannungsschutz und die physischen Komponenten des Versorgungsnetzes haben kann. Beachten Sie in diesem Zusammenhang unbedingt die Angaben auf dem Typenschild am Gerät.

e) Zuverlässige Erdung
 Geräte, die in einem Gestell installiert werden, benötigen eine zuverlässige Erdung. Achten Sie insbesondere auf Anschlüsse an das Versorgungsnetz, die nicht direkt an einen Abzweigstromkreis, sondern indirekt, zum Beispiel über Verlängerungskabel, erfolgen.

ATTENTION – When the product is installed in a rack:
a) Elevated operating ambient temperature
 If installed in a closed or multi-unit rack assembly, the operating ambient temperature of the rack environment may be greater than room ambient. Therefore, consideration should be given to installing the equipment in an environment compatible with the manufacturer's maximum rated ambient temperature (T_{ma}: 0°C to 35°C (32°F to 95°F)).

b) Reduced air flow
 Installation of the equipment in a rack should be such that the amount of air flow required for safe operation of the equipment is not compromised.
c) Mechanical loading
 Mounting of the equipment in the rack should be such that a hazardous condition is not achieved due to uneven mechanical loading.

d) Circuit overloading
 Consideration should be given to the connection of the equipment to the supply circuit and the effect that overloading of circuits might have on overcurrent protection and supply wiring. Appropriate consideration of equipment nameplate ratings should be used when addressing this concern.

e) Reliable earthing
 Reliable earthing of rack-mounted equipment should be maintained. Particular attention should be given to supply connections other than direct connections to the branch circuit (e.g., use of power strips).

For the customers in the UNITED KINGDOM

WARNING
THIS APPARATUS MUST BE EARTHED

IMPORTANT
 The wires in this mains lead are coloured in accordance with the following code:

Green-and-yellow : Earth
Blue : Neutral
Brown : Live

As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured markings identifying the terminals in your plug proceed as follows:
 The wire which is coloured green-and-yellow must be connected to the terminal in the plug which is marked by the letter E or by the safety earth symbol ⚡ or coloured green or green-and-yellow.

Precautions

On safety

- Should any liquid or solid object fall into the cabinet, unplug the unit and have it checked by qualified personnel before operating it further.
- Unplug the unit from the wall outlet if it is not to be used for several days.
- To disconnect the AC power cord, pull it out by the plug. Never pull the cord itself.

On installation

- Allow adequate air circulation to prevent internal heat build-up. Do not place the unit on surfaces (rugs, blankets, etc.) or near materials (curtains, draperies) that may block the ventilation holes.
- Do not install the unit near heat sources such as radiators or air ducts, or in a place subject to direct sunlight, excessive dust, mechanical vibration or shock.
- Keep the unit away from a loudspeaker or motor, as the picture may be affected.

On cleaning

Clean the unit with a slightly dampened soft cloth. Use a mild household detergent. Never use strong solvents such as thinner or benzene as they might damage the finish of the cabinet.
As a safety precaution, unplug the unit before cleaning it.

On repacking

Retain the original carton and packing materials for safe transport of this unit in the future.

If you have any questions about this unit, contact your authorized Sony dealer.

Features

COMPONENT SDI¹⁾ input/output

SMPT-E 259M/CCIR 656-III 4:2:2 serial digital signals from digital BETACAM VTRs can be input and active through output.

Four color systems available

The monitor can display NTSC, PAL, SECAM and NTSC4.43²⁾ signals. The appropriate color system is selected automatically.

HR (High Resolution) Trinitron^{®3)} picture tube

The HR Trinitron picture tube provides a high resolution picture. Horizontal resolution is more than 450 TV lines at the center of the picture.

Beam current feedback circuit

The built-in beam current feedback circuit assures stable white balance.

Comb filter

When NTSC video signals are received, a comb filter activates to increase the resolution, resulting fine picture detail without color spill or color noise.

Multiple input signals

In addition to the composite video signals and the Y/C signals, analog RGB signals and component signals can be input.

External sync input

When the EXT SYNC button is pressed, the monitor can be operated on the sync signal fed through an external sync connector.

Blue only picture

Black and white apparent picture consisting from only the blue signal will be displayed. This facilitates the "chroma" and "phase" adjustment, and the observation of the video noise.

16:9 selector

The monitor can display the 16:9 signal with the correct ratio of width and height, compressing the picture vertically.

Under scan mode

The monitor can display signals that are scanned outside the normal screen so you can monitor the whole image.

Automatic/Manual DEGAUSS

The screen is automatically demagnetized when the monitor is turned on. Manual degauss is also available by pressing the DEGAUSS button.

Automatic termination

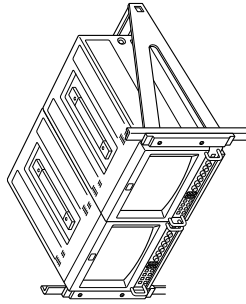
(only terminals with $\sim V \sim$ mark)

The Y/C, VIDEO IN and EXT SYNC IN connectors are terminated at 75 ohms inside, when no cable is connected to the loop-through output connectors.

When a cable is connected to an output connector, the 75-ohm termination is automatically released.

EIA standard 19-inch rack mounting

By using an MB-507 mounting bracket (not supplied), the monitor can be mounted in an EIA standard 19-inch rack. For details on mounting, see the instruction manual of the MB-507.



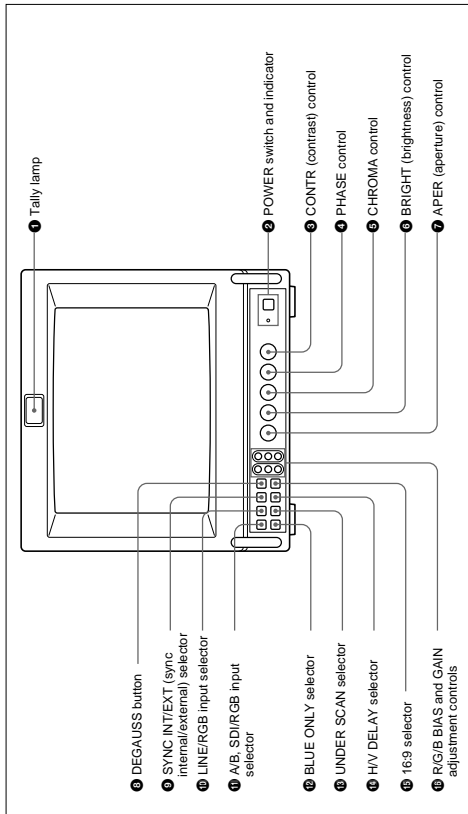
1) SDI: Serial Digit Interface

2) An NTSC4.43 signal is used for playing back NTSC-recorded video cassettes with a video tape recorder/player especially designed for use with this system.

3) Trinitron is a trademark of Sony Corporation.

Location and Function of Parts and Controls

Front



1 Tally lamp
This indicator lights up. The tally control connection is needed.
For the pin assignment, see "Specifications" on page 10 (GB).

2 POWER switch and indicator
Depress to turn the monitor on. The indicator will light up in green.
The POWER indicator also functions as the external power source indicator. When the power supplied through the DC 12 V IN jack decreases, the indicator flashes.

3 CONTR (contrast) control
Turn clockwise to make the contrast stronger and counterclockwise to make it weaker.

4 PHASE control
This control is effective only for the NTSC and NTSC4:43 color systems. Turn clockwise to make the skin tones greenish and counterclockwise to make them purplish.

5 CHROMA control
Turn clockwise to make the color intensity stronger and counterclockwise to make it weaker.

4 (GB)

9 SYNC INT/EXT (sync internal/external) selector
Keep this button released (INT) to operate the monitor on the sync signal from the displayed composite video signal.

Depress this button (EXT) to operate the monitor on an external sync signal fed through the EXT SYNC connector on the rear panel.
When the digital component signal is selected, the monitor is operated on the internal sync signal.

10 LINE/RGB input selector
This button selects the input signal to be monitored.
Depress this button (RGB) for a signal fed through the COMPONENT SDI connectors or the RGB/COMPONENT connectors. Keep this button released (LINE) for a signal fed through the LINE A or LINE B connectors.

11 A/B, SDI/RGB input selector
When the LINE/RGB input selector is set to LINE, keep this button released (A) for a signal fed through the LINE A connectors. Depress this button (B) for a signal fed through the LINE B connectors.

When the LINE/RGB input selector button is set to RGB,

this button selects the digital signal or the component signal fed through the RGB input connectors on the rear panel. Keep this button released (SDI) for the digital signal. Depress this button (RGB) for the component signal or the analog RGB signal.

When this button is depressed, the signal is selected by setting the RGB/Y-R-Y-B-Y selector on the rear panel.

12 BLUE ONLY selector
Depress this button to turn off the red and green signals. A blue signal is displayed as an apparent monochrome picture on the screen. This facilitates "chroma" and "phase" control adjustments and the observation of video noise.

Note

The PHASE control adjustment is effective only for NTSC system.

13 UNDER SCAN selector
Depress this button for underscanning. The display size is reduced by approximately 3% so that four corners of the picture are visible.

14 HV DELAY selector
Depress this button to observe the horizontal and vertical sync signals at the same time. The horizontal sync signal is displayed in the left quarter of the screen; the vertical sync signal is displayed near the center of the screen.

15 16:9 selector
Press this button to monitor the signals of 16:9 picture. Pressing the UNDER SCAN selector **13** in 16:9 mode displays the whole 16:9 picture up to the four corners.

16 R/G/B BIAS and GAIN adjustment controls
Used for white balance fine adjustment.

BIAS and GAIN controls are provided for the R (red), G (green) and B (blue) screens.

BIAS: Adjust the color temperature and brightness of the screen at the lowlight.

GAIN: Adjust the color temperature and brightness of the screen at the highlight.

To adjust them, use a screwdriver with a diameter of 2 mm ($\frac{1}{16}$ inch).

Notes

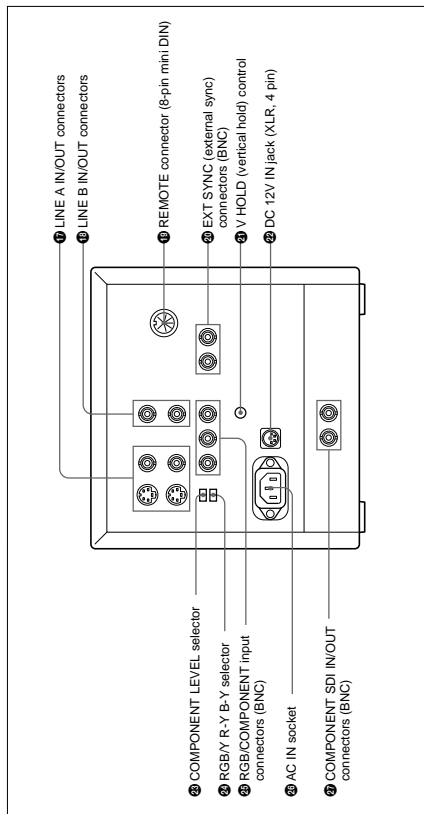
- The PHASE control has no effect on the PAL system, SECAM system, analog RGB signals, analog component signals and digital component signals.
- The CHROMA and APER control have no effect on the analog RGB signals.

6 DEGAUSS button
Press this button momentarily. The screen will be demagnetized.

Note
If you press the DEGAUSS button again too soon, the color shades may be uneven.

Location and Function of Parts and Controls

Rear



1 LINE A IN/OUT connectors

To monitor the signal fed through these connectors, keep the LINE/RGB input selector and the A/B, SDI/RGB input selector released (LINE and A).

Y/C IN (4-pin mini DIN): Connect to the Y/C output of a video camera, VCR or other video equipment.

Y/C OUT (4-pin mini DIN): Loop-through output of the Y/C IN connector. Connect to the Y/C input of a VTR or another monitor.

VIDEO IN (BNC): Connect to the video output of a video camera, VTR or other video equipment.

VIDEO OUT (BNC): Loop-through output of the VIDEO IN connector. Connect to the video input of a VTR or another monitor.

NOTE

When a plug is connected to the Y/C IN connector, the VIDEO IN connector is automatically disconnected.

2 LINE B IN/OUT connectors

To monitor the signal fed through these connectors, keep the LINE/RGB selector released (LINE) and depress the A/B, SDI/RGB input selector on the front panel (B).

3 V HOLD (vertical hold) control

Turn to stabilize the picture if it rolls vertically. After the picture is stabilized, display another signal and adjust this again so that the picture is stabilized even when another signal is selected.

4 DC 12V IN jack (XLR, 4 pin)

Connect the DC 12 V power source to operate this monitor.

5 COMPONENT LEVEL selector

Select the component level from among two modes.
N10/SMPTE: for 1000/1000 signal
BETA 0: for 1000/75/0 signal

6 RGB/Y R-Y B-Y selector

RGB: Set to this position to input the analog RGB signal.
Y R-Y B-Y: Set to this position to input the component signal.

7 RGB/COMPONENT input connectors (BNC)

To monitor a signal fed through these connectors, depress the LINE/RGB input selector on the front panel (RGB) and the A/B, SDI/RGB input button (RGB). When the SYNC INT/EXT selector on the front panel is released (INT), the monitor operates on the sync signal from the G/Y channel.

To monitor the analog RGB signal

Connect to the analog RGB signal outputs of a video camera. Depress the A/B, SDI/RGB input selector on the front panel (RGB).
 Set the RGB/Y R-Y B-Y selector **3** on the rear panel to RGB.

To monitor the component signal

Connect to the Y/R-Y/B-Y component signal outputs of a Sony BetaCam video camera. Depress the A/B, SDI/RGB input selector on the front panel (Y R-Y B-Y). Set the RGB/Y R-Y B-Y selector **3** on the rear panel to Y R-Y B-Y.

8 AC IN socket

Connect the supplied AC power cord to this socket.

9 COMPONENT SDI IN/OUT connectors (BNC)

Depress the LINE/RGB input button (RGB) and release the A/B SDI/RGB input button (SDI) on the front panel.
IN: Inputs SMPTE 259M/CCIR 656-III 4:2:2 serial digital signals from Digital BETACAM VTRs, etc.
OUT: Outputs the digital signal of the equipment connected to the COMPONENT SDI IN connector (Active through).

We recommend to connect the following cable to this connectors.
 Coaxial cable: 5C-2V (Max. 200 m, 656 feet)
 Fujikura America Inc., Fujikura Europe Ltd (FEL) or the equivalent

Relationships between the selectors, connectors and the input signal

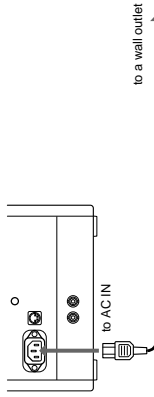
The input signal is changed by the selectors and connectors on the front and rear panels as listed below.

Selectors and connectors	Front panel		Rear panel
	A/B, SDI/RGB input selector 1	LINE/RGB input selector 2	Input connector
Input signal	A	LINE	LINE A (VIDEO)
	B	LINE	LINE B
COMPOSITE	A	LINE	LINE A (Y/C)
Y/C	A	LINE	LINE A (Y/C)
COMPONENT SDI	SDI	RGB	COMPONENT SDI
	RGB	RGB	RGB/COMPONENT
ANALOG RGB	RGB	RGB	RGB
	RGB	RGB	RGB/COMPONENT
COMPONENT (Y R-Y B-Y)	RGB	RGB	RGB/COMPONENT
			RGB/Y R-Y B-Y selector 3
			Y
			R-Y
			B-Y

Power Sources

Using House Current

Connect the supplied AC power cord to the AC IN socket on the rear panel and to a wall outlet.



When the AC power cord is plugged into the AC IN socket, the DC power connected to the DC 12 V IN jack is automatically disconnected.

Using DC 12V IN jack

12V direct current is supplied through DC 12 V IN jack.

Specifications

Video signal

Color system NTSC, PAL, SECAM, NTSC4.43
 Resolution 450 TV lines
 Aperture correction -4.0 dB to +6.0 dB (at 3.0 MHz)
 Frequency response 6.0 MHz (-3.0 dB)
 Synchronization AFC time constant 1.0 msec.

Picture performance

Normal scan 6% over scan of CRT effective screen area
 Underscan 3% underscan of CRT effective screen area
 Linearity Less than 2.0%
 Convergence Central area: 0.43 mm (typical)
 Peripheral area: 0.53 mm (typical)
 Raster size stability H: 1.0%, V: 1.5%
 High voltage regulation 3.0%
 Color temperature D65

Inputs

COMPONENT SDI IN: BNC connector
 Serial digital (270M bits/s)
 SMPTE 259M/CCIR 656-III
 Y/C IN: 4-pin mini DIN connector
See the pin assignment on page 10 (GB).
 VIDEO IN: BNC connector
 1 Vp-p, ± 6 dB, sync negative
 R/R-Y, G/Y, B/B-Y: BNC connector
 R, G, B channels: 0.7 Vp-p, ± 6 dB
 Sync on green: 0.3 Vp-p, negative, 75 ohms terminated
 R-Y, Y, B-Y channels: 0.7 Vp-p, ± 6 dB (Standard color bar signal of 100% chrominance)
 EXT SYNC IN: BNC connector
 Composite sync 4 Vp-p, ± 6 dB, negative

Loop-through outputs

COMPONENT SDI OUT: BNC connector
 Active through output
 Serial digital (270M bits/s)
 SMPTE 259M/CCIR 656-III
 Y/C OUT: 4-pin mini DIN connector (75 ohms automatic termination)
 VIDEO OUT: BNC connector (75 ohms automatic termination)
 EXT SYNC OUT: BNC connector (75 ohms automatic termination)

REMOTE input

REMOTE: 8-pin mini DIN connector
See the pin assignment on page 10 (GB).

General

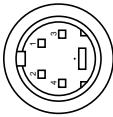
Power consumption
 BVM-8045QD:
 48W max. at AC operation
 44W at DC operation
 BVM-9045D:
 45W at AC operation
 42W at DC operation
 Power requirements
 BVM-8045QD:
 120 V AC, 50/60Hz
 12 V DC with the AC-550
 AC Adaptor (not supplied), etc.
 BVM-9045D
 100 to 240 V AC, 50/60 Hz
 12 V DC with the AC-550CE
 AC Adaptor (not supplied), etc.
 Operating conditions
 Temperature 0 to +35°C (32 to 95°F)
 Humidity 0 to 90% (no condensation)
 Pressure 700 to 1060 hPa
 Transport and storage conditions
 Temperature -10 to +40°C
 Humidity 0 to 90%
 Pressure 700 to 1060 hPa
 Dimensions Approx. 217 × 217 × 352.5 mm (w/h/d) (8 5/8 × 8 5/8 × 14 inches) (not incl. projecting parts and controls)

Specifications

- Mass Approx. 8.5 kg (18 lb 12 oz) (not incl. battery packs)
- Accessory supplied
- AC power cord (1)
 - Cable with an 8-pin connector (1)
 - Operation Manual (1)
 - Tally plate (1)
 - AC plug holders (1)

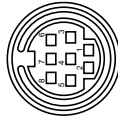
Pin Assignment

Y/C IN connector (4-pin mini DIN)



Pin No.	Signal	Description
1	Y-input	1 V _{p-p} , sync negative, 75 ohms
2	CHROMA sub-carrier-input	286 mV _{p-p} (NTSC) 300 mV _{p-p} (PAL), burst Delay time between Y and C: within 0 ±100 nsec., 75 ohms
3	GND for Y-input	GND
4	GND for CHROMA-input	GND

REMOTE connector (8-pin mini DIN)



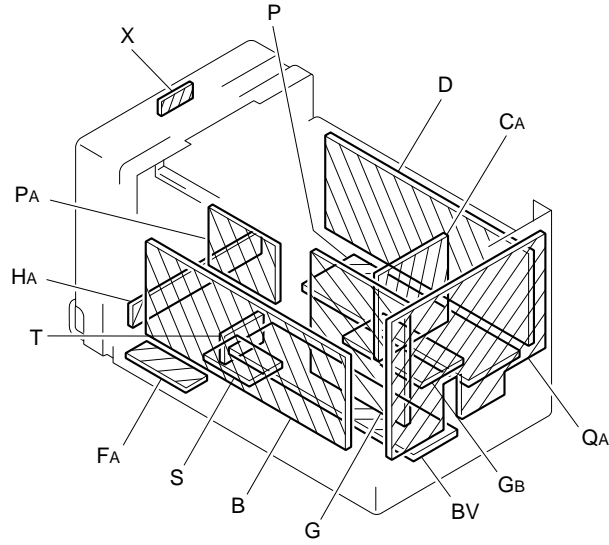
Pin No.	Signal
1	4 : 3/16 : 9
2	H/V delay
3	GND
4	INT/TEXT SYNC
5	Tally
6	Underscan/normal scan
7	A/B or SD/LINE
8	LINE/RGB

For remote control, connect the pin of the desired function to pin 3 (GND).

Design and specifications are subject to change without notice.

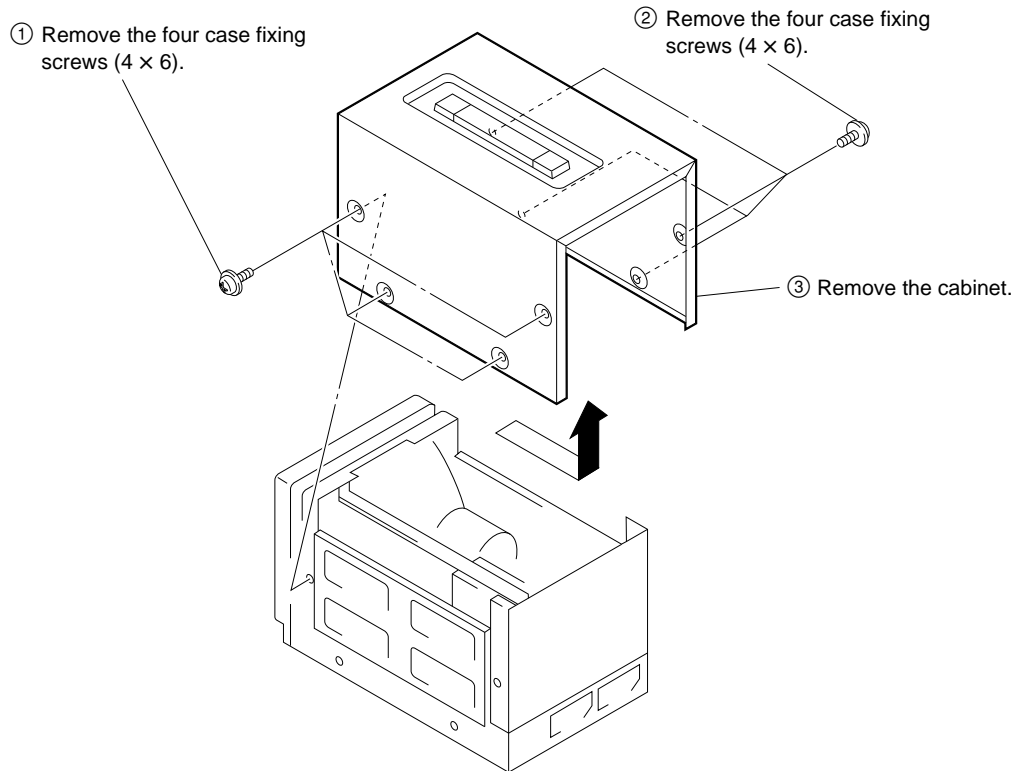
SECTION 2 SERVICE INFORMATION

2-1. CIRCUIT BOARDS LOCATION

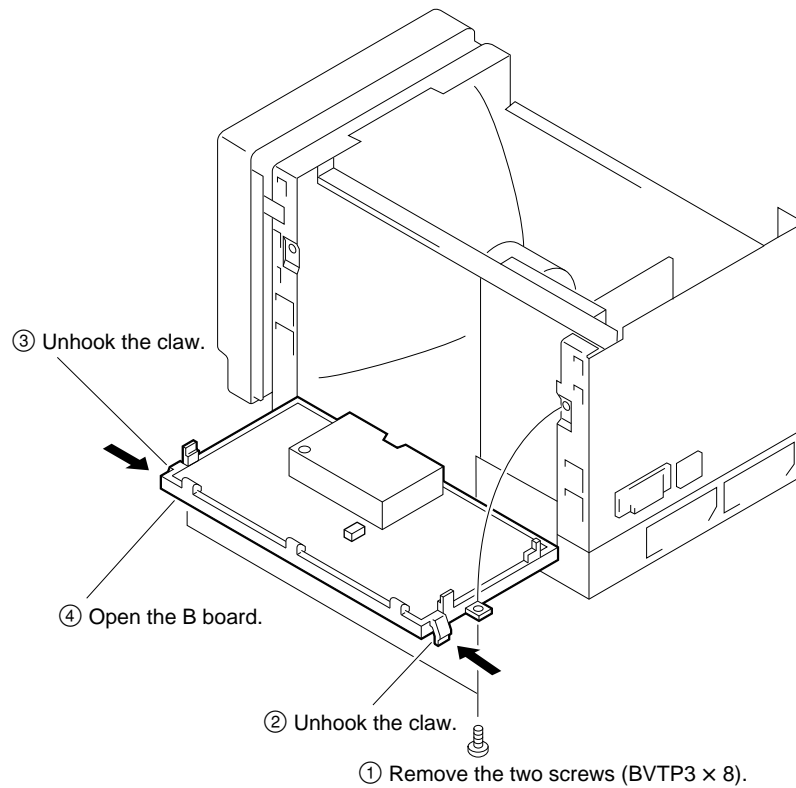


2-2. DISASSEMBLY

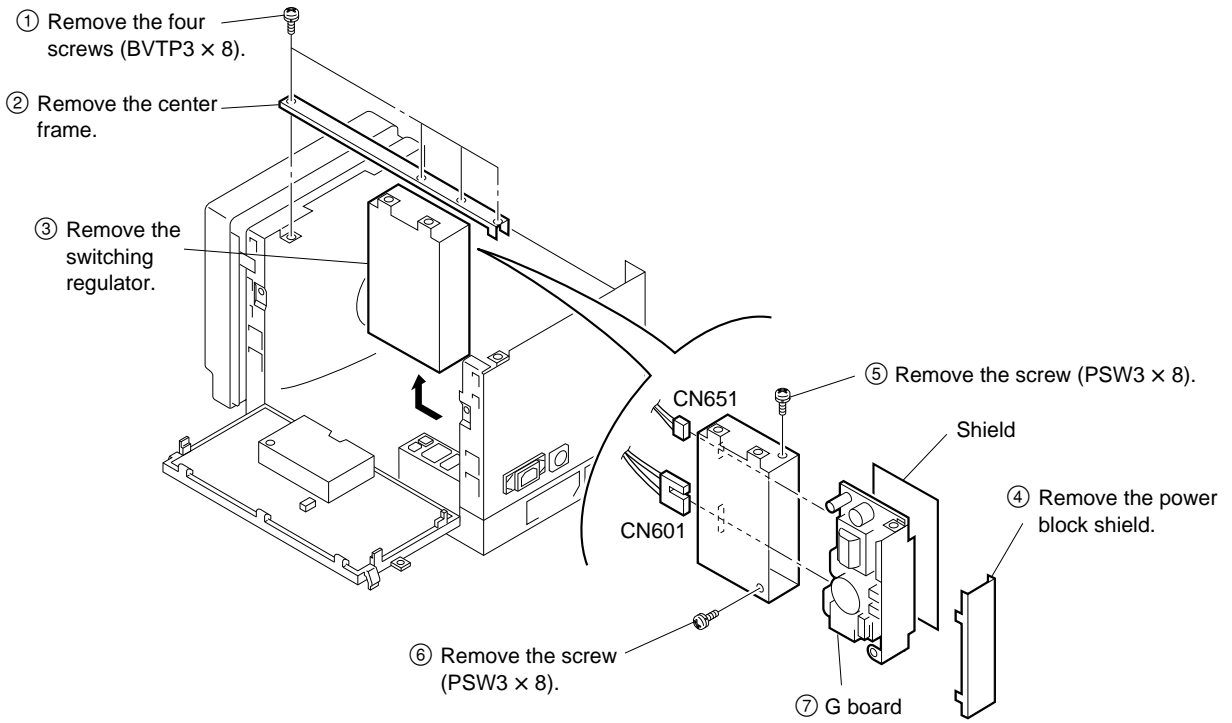
2-2-1. Cabinet Removal



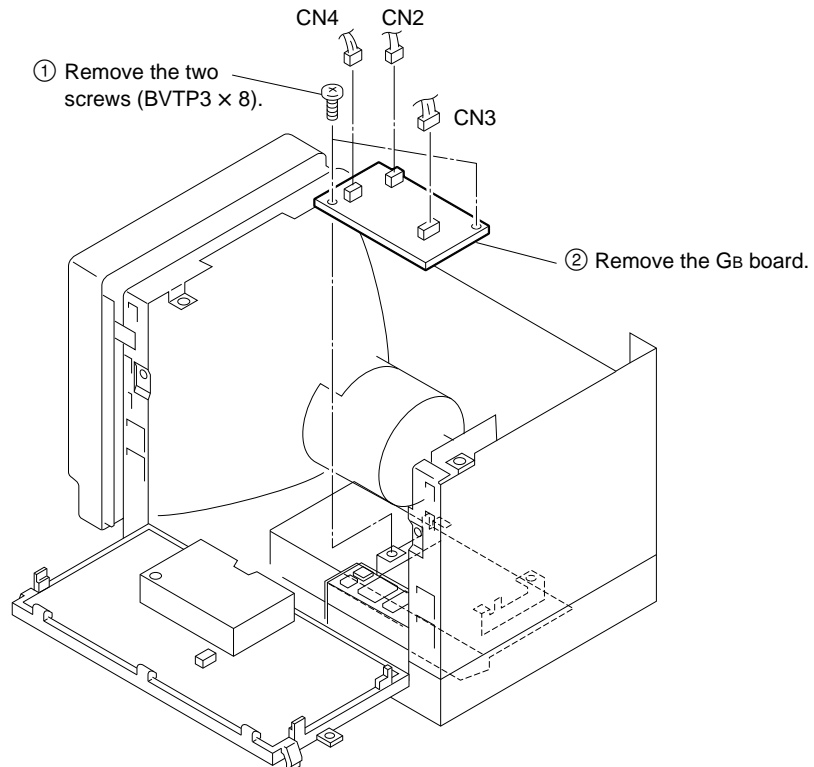
2-2-2. B Board Removal



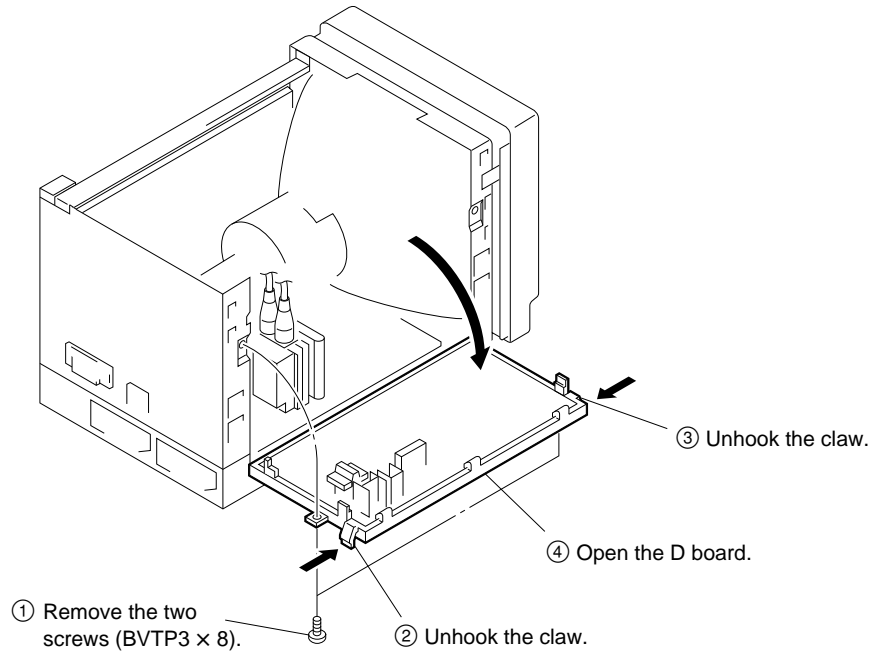
2-2-3. Switching Regulator (G Board) Removal



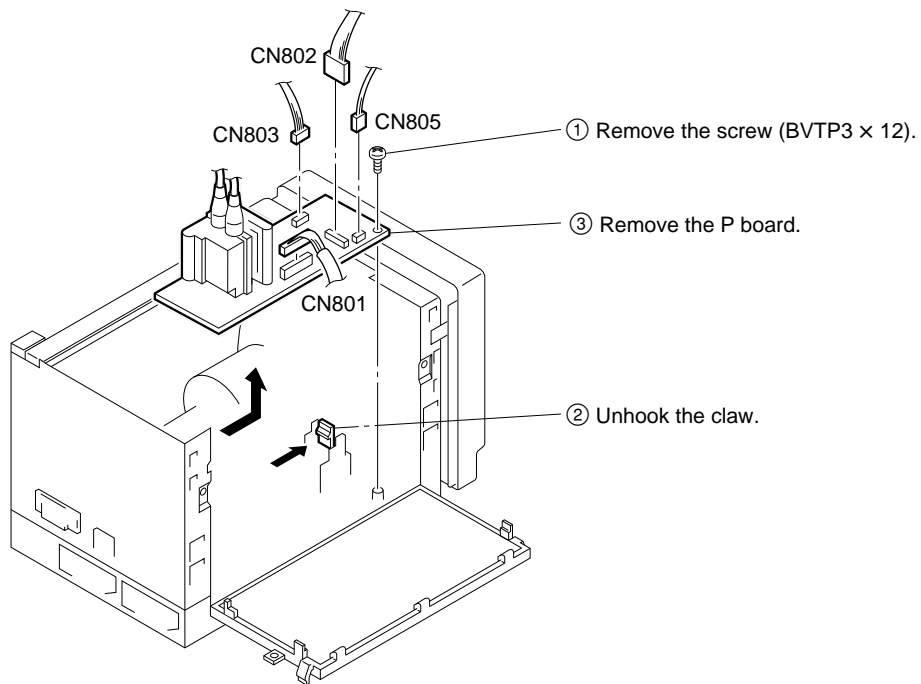
2-2-4. GB Board Removal



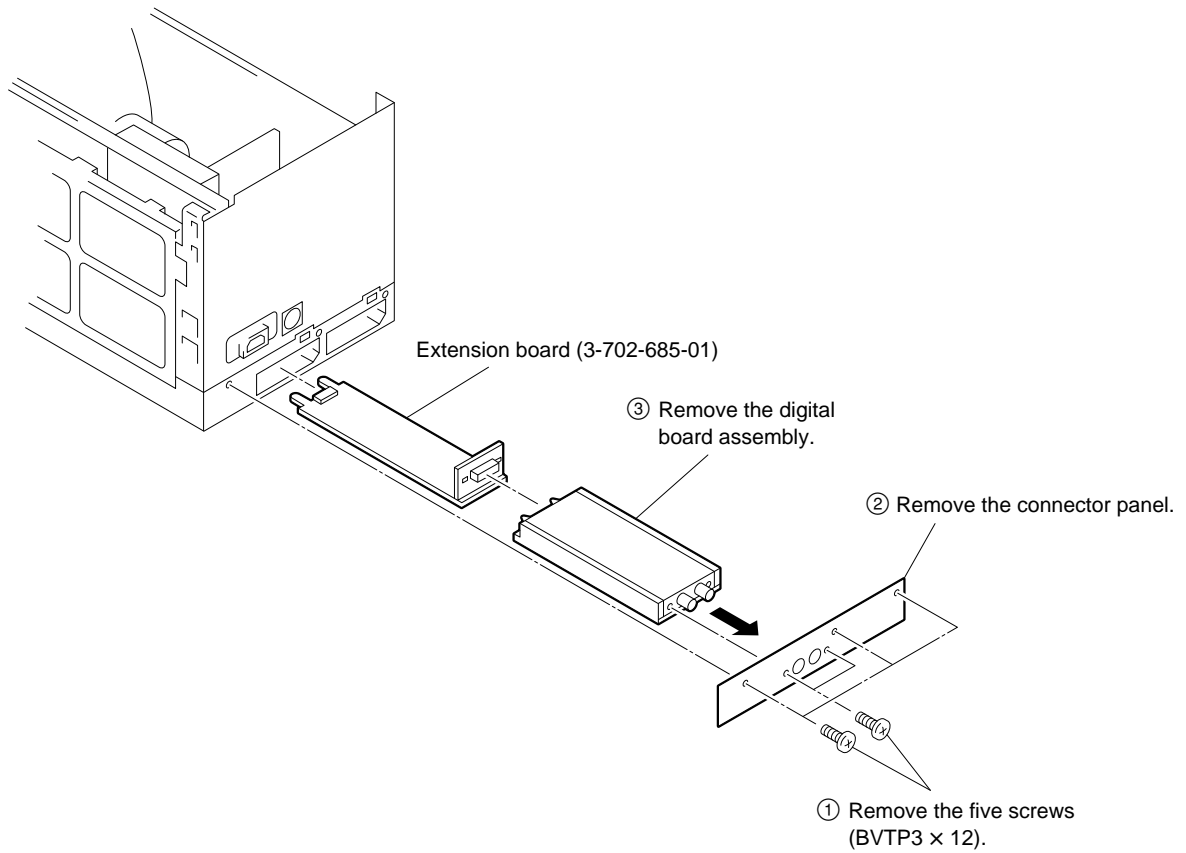
2-2-5. D Board Removal



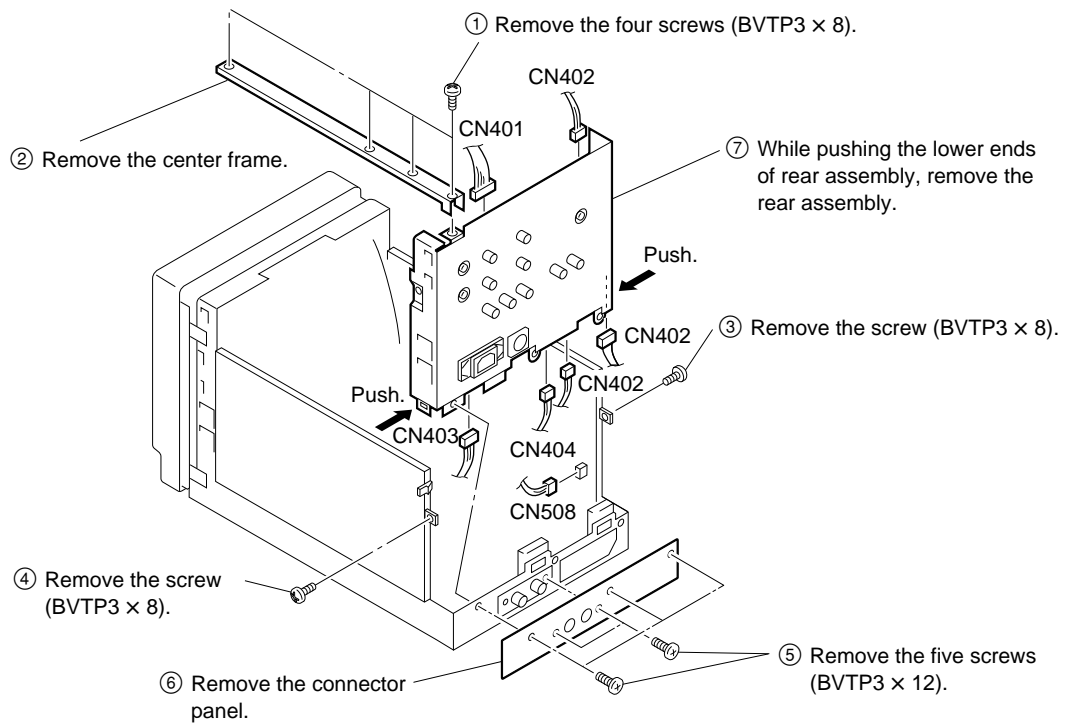
2-2-6. P Board Removal



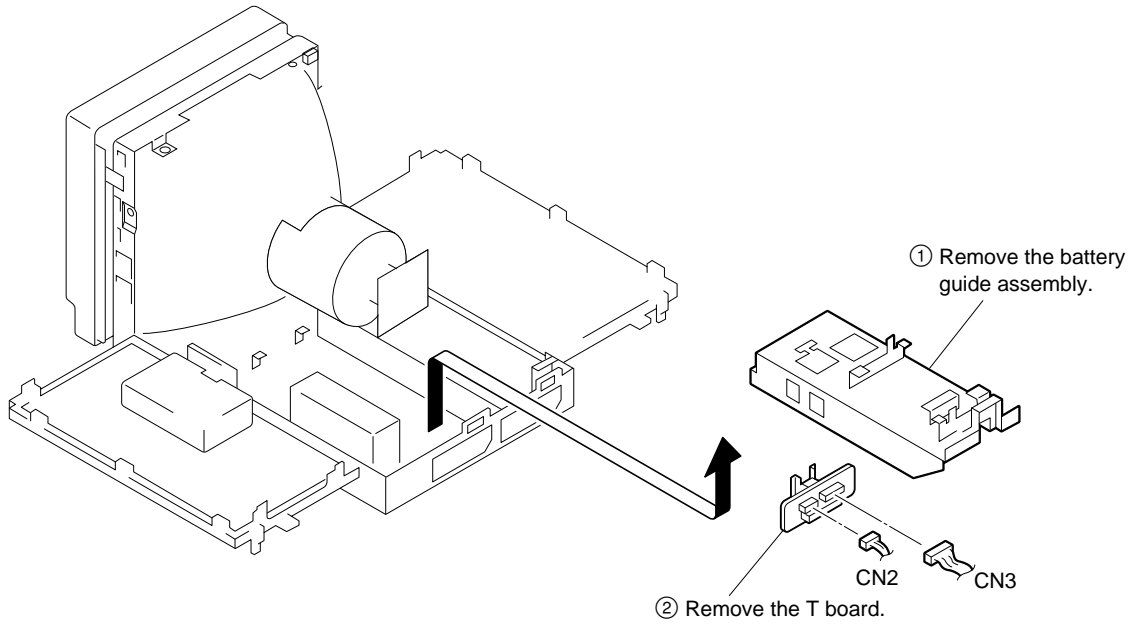
2-2-7. Extension Board



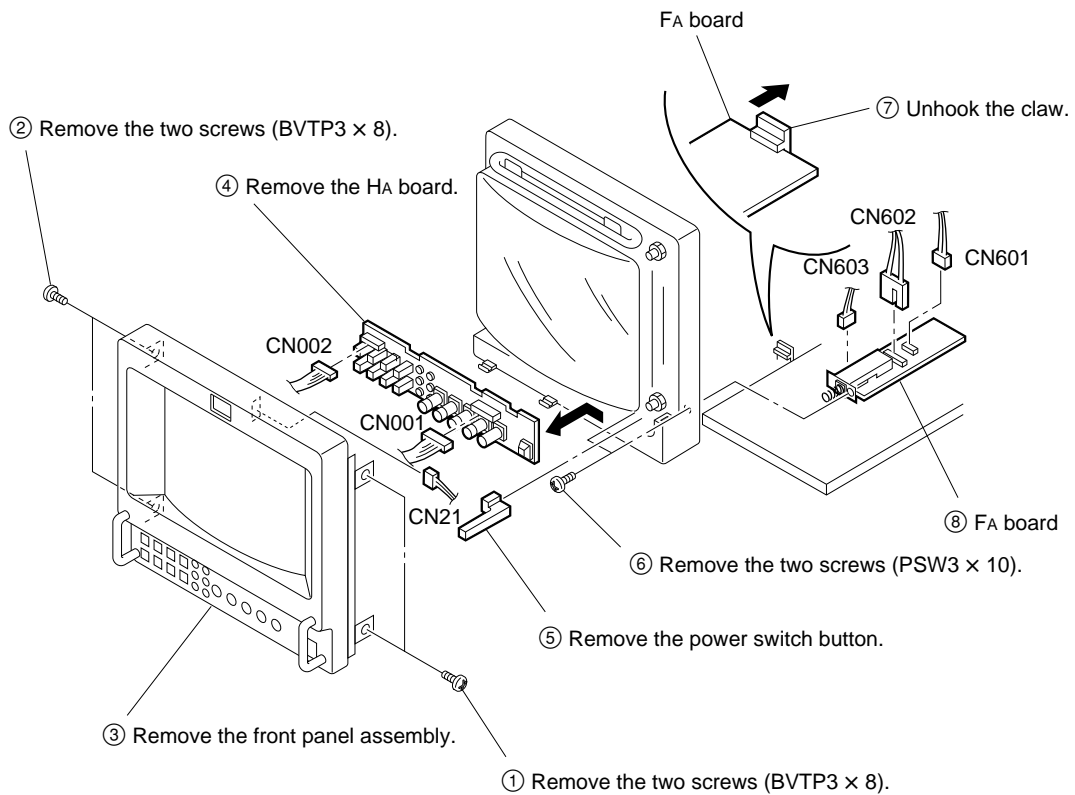
2-2-8. Rear Assembly Removal



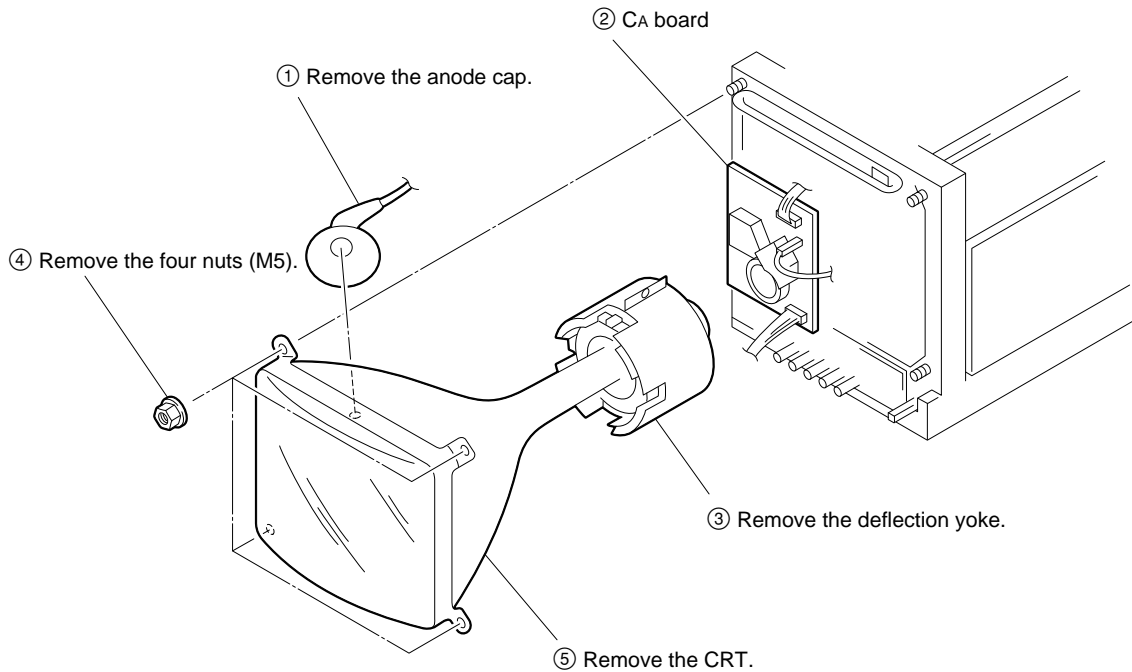
2-2-9. T Board Removal



2-2-10. HA and FA Boards Removal



2-2-11. CRT Removal

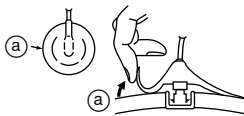


2-2-12. Removal of Anode-cap

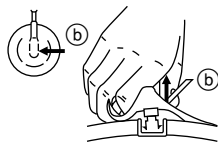
Note: Short circuit the anode of the picture tube and the anode cap to the metal chassis, picture tube shield or carbon painted on the picture tube, after removing the anode.

1. Removing Procedures

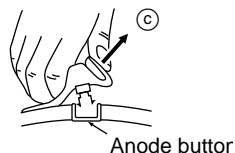
- (1) Turn up one side of the rubber cap in the direction indicated by the arrow (a).



- (2) Using a thumb pull up the rubber cap firmly in the direction indicated by the arrow (b).

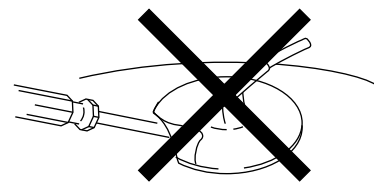
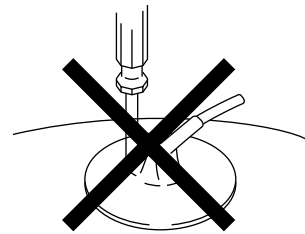


- (3) When one side of the rubber cap is separated from the anode button, the anode-cap can be removed by turning up the rubber cap and pulling up it in the direction of the arrow (c).



2. Handling Precautions

- (1) Don't hurt the surface of anode-caps with sharp shaped material!
- (2) Don't press the rubber hardly not to hurt inside of anode-caps!
A material fitting called as shatter-hook terminal is built in the rubber.
- (3) Don't turn the foot of rubber over hardly!
The shatter-hook terminal will stick out or hurt the rubber.



3-3. LANDING ADJUSTMENT

3-3-1. Preparations

1. To reduce geomagnetism effects, face the CRT screen to the east or west.
2. Turn on the power switch, and erase the magnetic force using a degausser.

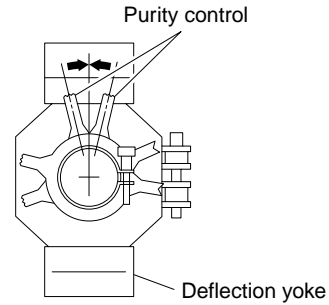


Fig. 3-1

3-3-2. Landing Adjustment

1. Receive the white signal, and set the CONTR and BRIGHT controls as follows:
 CONTR: MAXIMUM
 BRIGHT: set easy to observe
2. Adjust the white balance, screen (G2) voltage, and convergence roughly.
3. Loosen the deflection yoke mounting screw, and set the purity control to the center as shown in Fig. 3-1.
4. Set the test signal generator to green.
5. Move the deflection yoke backward, and adjust the purity control so that the green is in the center and blue and red are at the sides, evenly. (See Fig. 3-2.)
6. Move the deflection yoke forward, and adjust so that the entire screen becomes green.
 (Repeat steps 4 to 7 as to red and blue.)
7. When the landing at the corners is not right, correct by using the magnet. (See Fig. 3-3.)
Note: When correction magnet is used, be sure to degauss the unit.
8. When the position of the deflection yoke is determined, tighten it with a deflection yoke mounting screw.

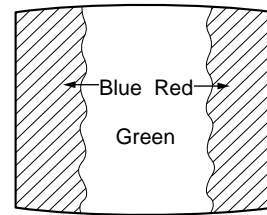


Fig. 3-2

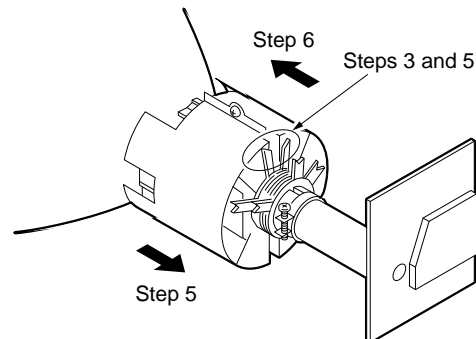
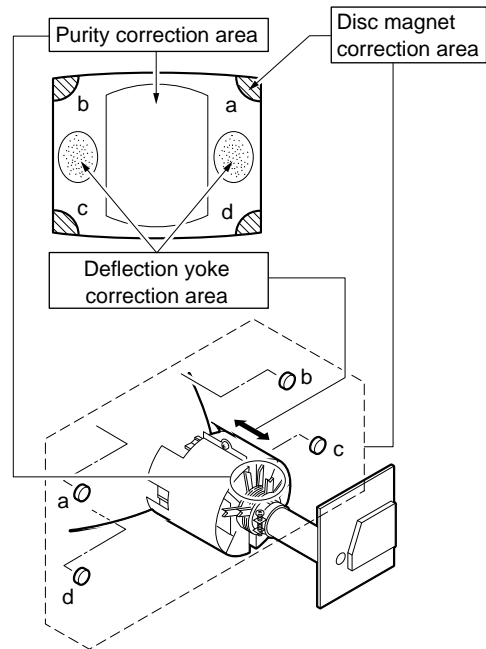


Fig. 3-3

3-4. CONVERGENCE ADJUSTMENT

3-4-1. Horizontal and Vertical Convergence Adjustment on the Center of Screen

1. Before starting the fine adjustment, perform V.SIZE, V.CENT, H.SIZE, H.CENT and screen distortion adjustments roughly.
2. Receive a dot signal, and set the BRIGHT control to minimum and CONTR control to normal.
3. Adjust RV701 (H.STAT) on the CA board to coincide the Red, Green, and Blue dots on the center of screen (horizontal movement).
4. Adjust V.STAT magnet to coincide the Red, Green, and Blue dots on the center of screen (vertical movement).

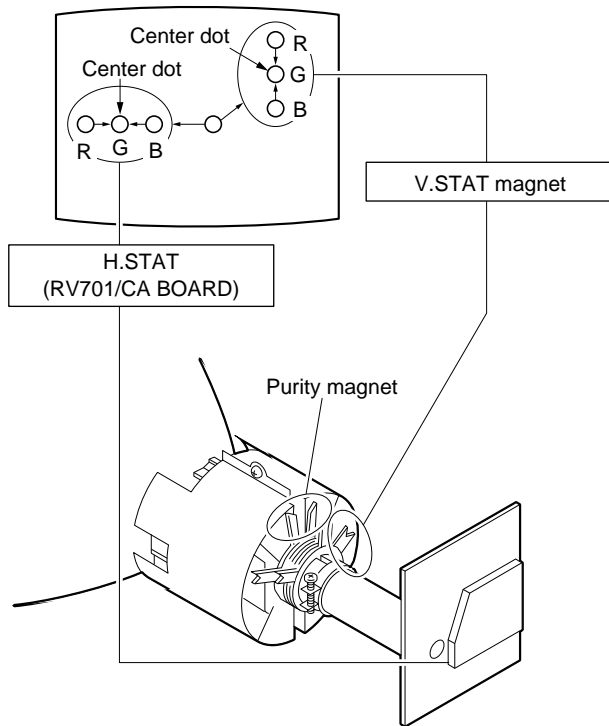


Fig. 3-4

Note: If Red, Green, and Blue dots do not coincide on the center of screen with RV701 (H.STAT) on the CA board, perform adjustment using V.STAT magnet at the same time while tracking. Tilt the V.STAT magnet and adjust static convergence to open or close the V.STAT magnet.

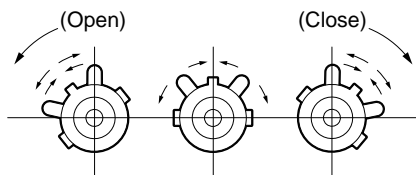


Fig. 3-5

5. The movement of Red, Green, and Blue dots by means of tilting, opening, and closing of the vertical static convergence magnet are as follows:

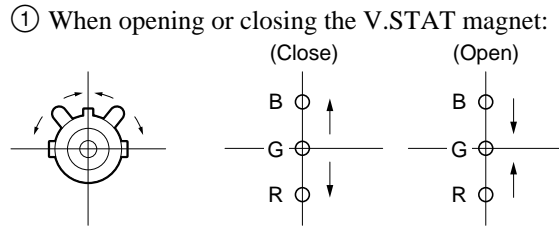


Fig. 3-6

- ② When tilting the V.STAT magnet counterclockwise:

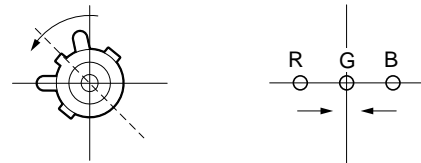


Fig. 3-7

- ③ When tilting the V.STAT magnet clockwise:

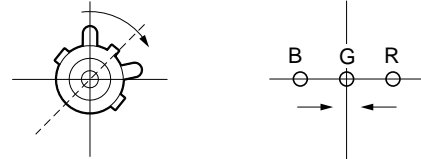


Fig. 3-8

- ④ When tilting the V.STAT magnet then open or close it:

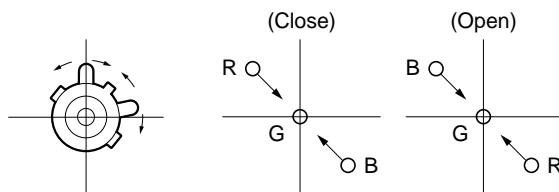


Fig. 3-9

Note: If Red and Green dots do not coincide with Blue dot, adjust with BMC (6-pole) magnet.

6. HMC/VMC correction with BMC (6-pole) magnet
 - ① HMC (Horizontal Misconvergence) correction and motion of the electron beam with BMC (6-pole) magnet:

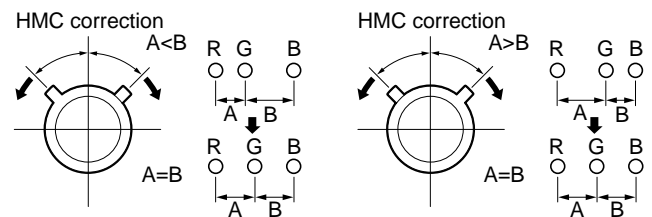


Fig. 3-10

② VMC (Vertical Misconvergence) correction and motion of the electron beam with BMC (6-pole) magnet:

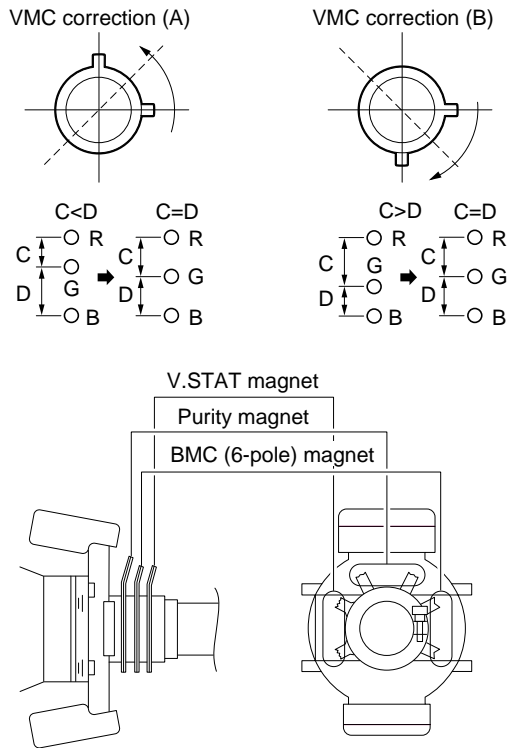


Fig. 3-11

3-4-2. Horizontal and Vertical Dynamic Convergence Adjustment in the Vicinity of Screen

1. When there is misconvergence at the sides of the screen, adjust the inclination of deflection yoke in accordance with the following steps.
2. Insert the three DY spacers between the deflection yoke and picture tube's funnel as shown in Fig. 3-12.
3. Adjust the convergence around the four corners with a permalloy.

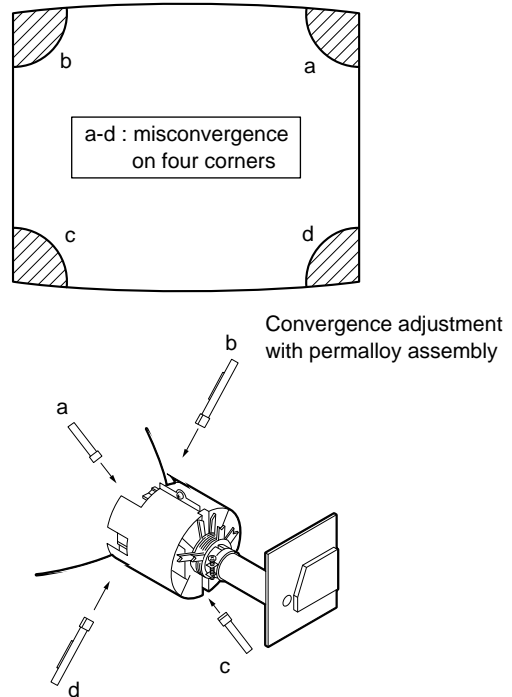


Fig. 3-13

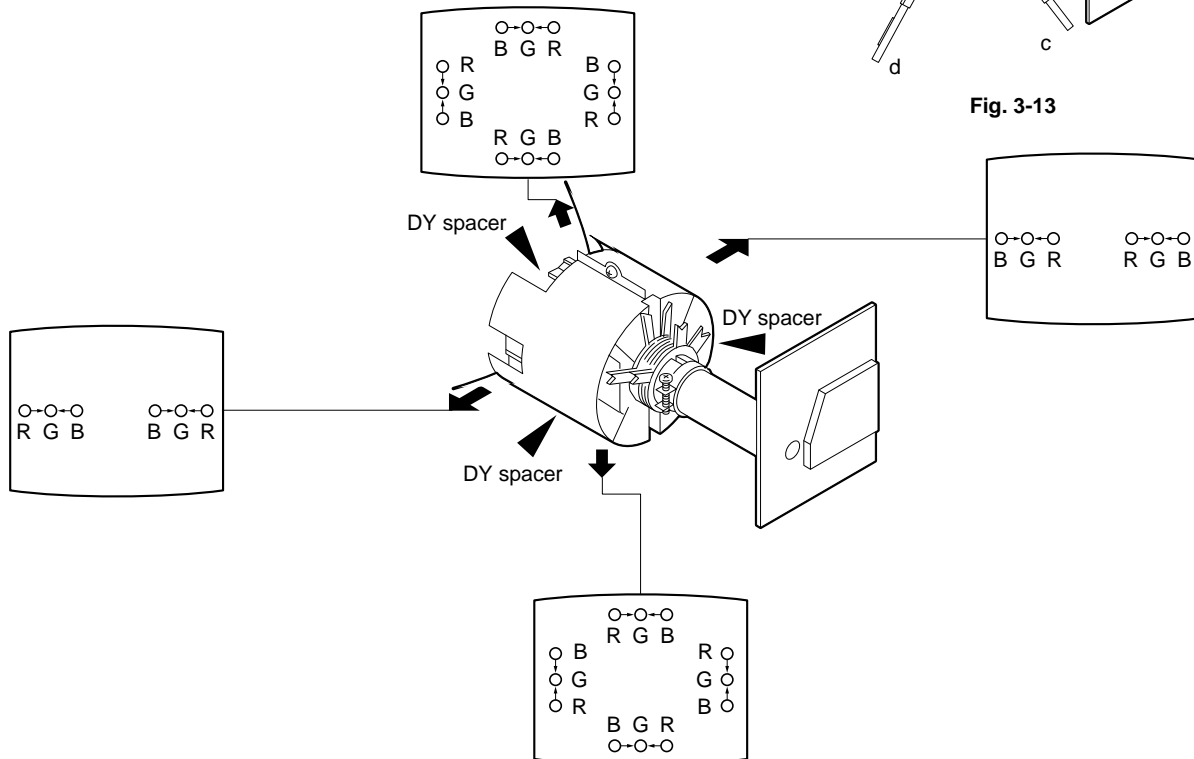


Fig. 3-12

3-5. FOCUS ADJUSTMENT

1. Receive the monoscope signal.
2. Set the CONTR control to normal.
3. Adjust the FOCUS control of the FBT so that the focus at the center of CRT screen and around the CRT screen become optimum.

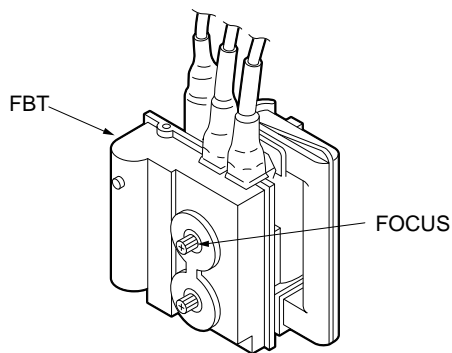


Fig. 3-14

3-6. WHITE BALANCE ADJUSTMENT

3-6-1. Screen Voltage Adjustment

1. Receive the dot signal.
2. Connect a digital voltmeter to pin 5 (KG) of CRT socket. Adjust RV119 (G C/O) on the B board so that the voltage is 103 Vdc.
3. Connect a digital voltmeter to pin 9 (KB) of CRT socket. Adjust RV121 (B C/O) on the B board so that the voltage is 103 Vdc.
4. Adjust the SCREEN control of the FBT to the position where just before the flyback line disappears from the CRT screen.

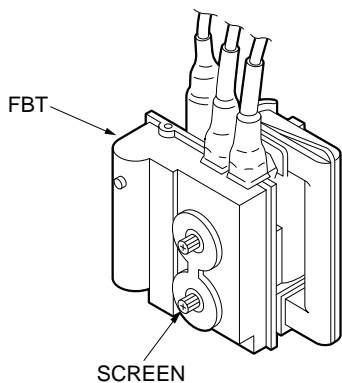


Fig. 3-15

3-6-2. White Balance Adjustment

1. Receive the color bars signal. (Set the BURST switch of the test signal generator to OFF.)
2. Set the following controls on the front panel as follows:
 BRIGHT ⇒ Center click
 CONTR ⇒ Minimum
 BIAS (Front panel) ⇒ 50 %
 GAIN (Front panel) ⇒ 50 %
3. Adjust RV118 (SUB BRT) on the B board so that the blue stripe portion on the color bars signal is bright dimly.

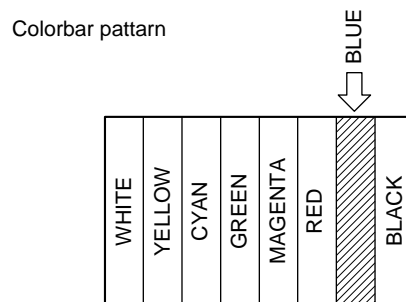




Fig. 3-16

4. Receive the white signal. (Set the BURST switch of the test signal generator to OFF.)
5. Set the CONTR control to 90 degrees clockwise from the center position.
6. Using the luminance meter, adjust the luminance level of the CRT screen so that it is 3 Nit. (Screen is bright dimly.)
7. Adjust the white balance of the cut-off with RV119 (G C/O) and RV121 (B C/O) on the B board.
8. Set the luminance level of white signal to 100 IRE with test signal generator.
9. Adjust the white balance of the high-light with RV120 (G GAIN) and RV122 (B GAIN) on the B board.
10. Press the BLUE ONLY switch on the front panel.
11. Adjust the white balance of the high-light with RV124 (R GAIN/BL) and RV125 (G GAIN/BL) on the B board.
12. Using the luminance meter, adjust the luminance level on the CRT screen with test signal generator so that it is 8 Nit. Then confirm that the white balance is adjusted correctly.

SECTION 4

SAFETY RELATED ADJUSTMENTS

Note: The “4-1. B+ Voltage Check” and “4-2. Protection Circuit (Hold-down circuit) Check” should always be performed when replacing the following components marked with  and  on the schematic diagram.

D board

components RV833, RV1603
 components C519, C843, C844, C845, C846, C847, C848, C1601, C1602, D835, D836, D1601, D1603, IC502, Q833, Q834, Q835, Q836, Q1601, Q1602, Q1603, R523, R850, R851, R852, R853, R854, R855, R856, R857, R858, R859, R860, R861, R862, R863, R1601, R1602, R1603, R1604, R1605, R1606, R1607, R1608, R1628, R1629, R1630, RV833, RV1601, RV1603

G board

components RV651
 components C654, IC601, IC651, PH601, R653, R655, R656, R657, RV651

P board

components C814, NL801, T802 (FBT)

4-1. B+ VOLTAGE CHECK

4-1-1. B+ Voltage Check in AC Operation

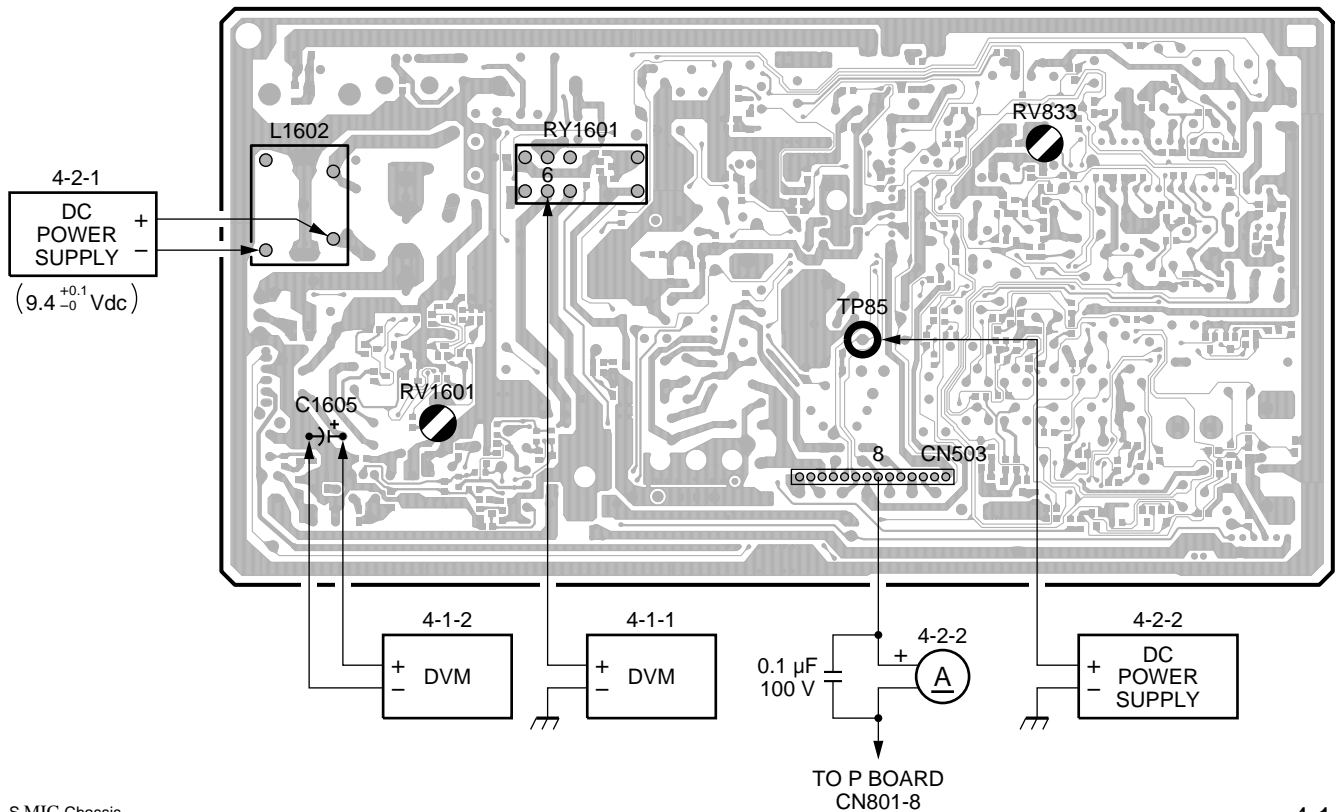
Note: Be sure to use the NF power supply. If not, use an ordinary variable step-up transformer of its distortion factor is 3 % or less.

Input signal: Dot pattern signal
 Controls: BRIGHT \Rightarrow Minimum
 CONTR \Rightarrow Minimum

1. Input 130 ± 5 Vac from the NF power supply (or variable step-up transformer of its distortion factor is 3 % or less).
2. Connect the digital voltmeter to pin 6 of RY1601 and ground on the D board.
3. Make sure that the voltage is within the following specification.

Specification:

- RY1601 Pin-6 (D board) = 41.9 Vdc or less
4. If the above voltage is out of specification, adjust voltage with RV651 on the G board. After adjusting, be sure to apply paint to RV651.



4-1-2. B+ Voltage Check in DC Operation

Input signal: Dot pattern signal
Controls: BRIGHT \Rightarrow Minimum
CONTR \Rightarrow Minimum

1. Input 12 ± 0.4 Vdc from the regulated DC power supply to DC 12V IN.
2. Connect the digital voltmeter to plus (+) terminal of C1605 and ground on the D board.
3. Make sure that the voltage is within the following specification.

Specification:

C1605 plus terminal (D board) = 40 ± 0.1 Vdc or less

4. If the above voltage is out of specification, adjust voltage with RV1601 on the D board. After adjusting, be sure to apply paint to RV1601.

4-2. PROTECTION CIRCUIT (HOLD-DOWN CIRCUIT) CHECK

4-2-1. Shutdown Voltage Adjustment

Input signal: Dot pattern signal
Controls: BRIGHT \Rightarrow Minimum
CONTR \Rightarrow Minimum

1. Turn RV1602 on the D board and stops where the protection circuit doesn't shut down.
2. Apply voltage of 9.4 ± 0.1 Vdc from the DC power supply between pin 5 of L1602 and ground on the D board.
3. Turn on the power.
4. Gradually turn RV1602 on the D board and stops where the shutdown circuit works.

4-2-2. Protection Circuit Operation Check

Input signal: Dot pattern signal
Controls: BRIGHT \Rightarrow Minimum
CONTR \Rightarrow Minimum

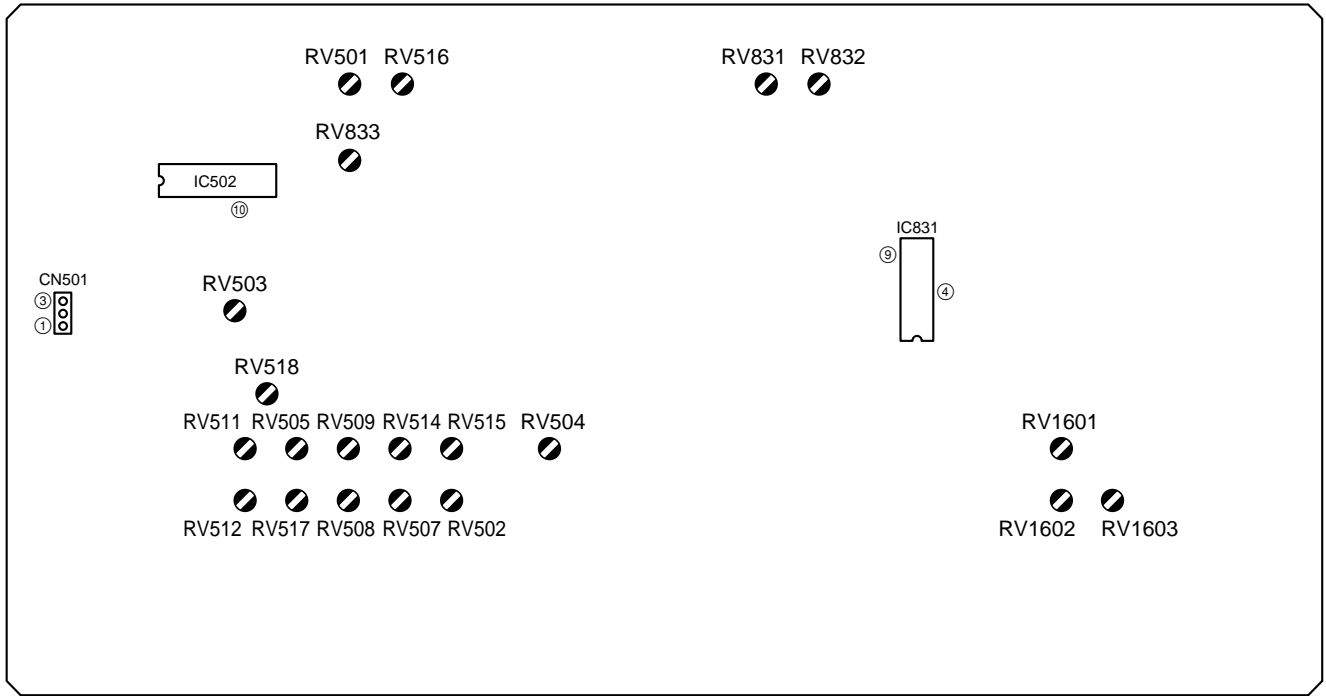
1. Connect (+) side of ammeter to pin 8 of CN503 on the D board and (-) side to pin 8 of CN801 on the P board.

Note: Connect film capacitor of $0.1 \mu\text{F}/100 \text{ V}$ in parallel to the ammeter.

2. Adjust BRIGHT and CONTR controls of the front panel so that the reading (I_{ABL}) on the ammeter becomes the following specification.
Specification: $I_{ABL} = 160 \pm 30 \mu\text{A}$
3. Apply 18.4 ± 0.1 Vdc from the regulated DC power supply to TP85 (or pin 6 of CN503) on the D board. Adjust RV833 on the D board so that the protection circuit works.
4. Apply 17.6 ± 0.1 Vdc from the regulated DC power supply to TP85 (or pin 6 of CN503) on the D board.
Specification: Protection circuit becomes inoperative.
5. Input the all white signal from the test signal generator.
6. Adjust BRIGHT and CONTR controls of the front panel so that the reading (I_{ABL}) on the ammeter becomes the following specification.
Specification: $I_{ABL} = 520 \pm 30 \mu\text{A}$
7. Apply 17.7 ± 0.1 Vdc from the regulated DC power supply to TP85 (or pin 6 of CN503) on the D board.
Specification: Protection circuit becomes operative.
8. Apply 16.9 ± 0.1 Vdc from the regulated DC power supply to TP85 (or pin 6 of CN503) on the D board.
Specification: Protection circuit becomes inoperative.
9. After the completion of steps 2 to 9, be sure to apply paint to RV833.

SECTION 5 CIRCUIT ADJUSTMENTS

5-1. D BOARD ADJUSTMENTS



D Board Adjusting Components Location

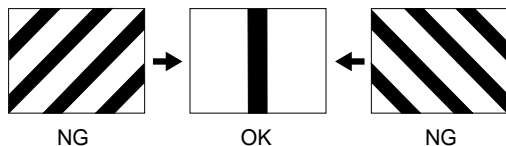
5-1-1. Horizontal Oscillating Frequency Adjustment (RV503)

Input signal: Monoscope signal

1. Connect (+) side of electrolytic capacitor of 0.1 μ F/100 V to pin 1 of CN501 (or pin 1 of IC502) and (-) side to pin 3 of CN501 (or ground).
2. Connect a frequency counter to pin 10 of IC502. Adjust RV503 (H.FREQ) so that the frequency reading becomes the following specification.

Specification: Frequency = 15.734 kHz \pm 50 Hz

3. If the frequency counter is not available, adjust RV503 so that a horizontal-hold becomes stable.

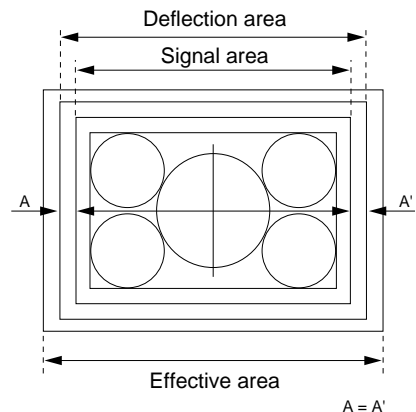


5-1-2. Video Phase Adjustment (RV512, RV516, RV502)

Input signal: Monoscope signal

- Switches: UNDER SCAN \Rightarrow Push (ON)
 16 : 9 \Rightarrow Pull (4 : 3)
- Controls: BRIGHT \Rightarrow Maximum
 CONTR \Rightarrow Minimum

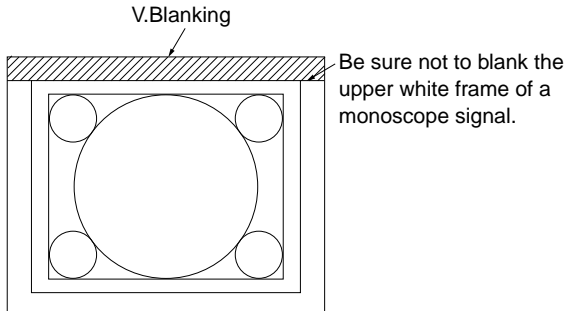
1. Adjust RV512 (U/H.SIZE) so that the white frame of monoscope signal is visible on the CRT screen.
2. Adjust RV516 (H.BLKG) so that the entire deflection area is visible on the CRT screen.
3. Turn RV502 (VIDEO PHASE) and make sure that the video phase is moving smoothly. Adjust RV502 so that the monoscope signal comes in the center of the signal area.



5-1-3. Vertical Blanking Adjustment (RV501)

Input signal: Monoscope signal
 Switches: UNDER SCAN \Rightarrow Push (ON)
 16 : 9 \Rightarrow Pull (4 : 3)
 Controls: BRIGHT \Rightarrow Maximum
 CONTR \Rightarrow Minimum

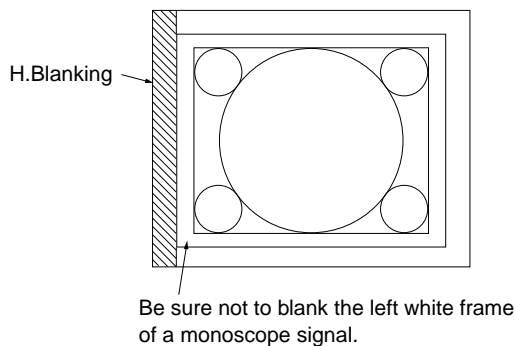
1. Adjust RV501 (V.BLKG) so that the upper white frame of monoscope signal is not blanked.



5-1-4. Horizontal Blanking Adjustment (RV516)

Input signal: Monoscope signal
 Switches: UNDER SCAN \Rightarrow Push (ON)
 16 : 9 \Rightarrow Pull (4 : 3)
 Controls: BRIGHT \Rightarrow Maximum
 CONTR \Rightarrow Minimum

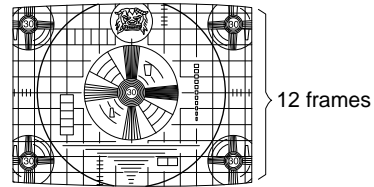
1. Adjust RV516 (H.BLKG) so that the left white frame of monoscope signal is not blanked.



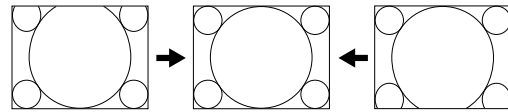
5-1-5. Vertical Deflection System Adjustment (RV505, RV507, RV504, RV518)

Input signal: Monoscope signal
 Switches: UNDER SCAN \Rightarrow Pull (OFF)
 16 : 9 \Rightarrow Pull (4 : 3)
 Controls: BRIGHT \Rightarrow 50 % (Center click)
 CONTR \Rightarrow 70 %

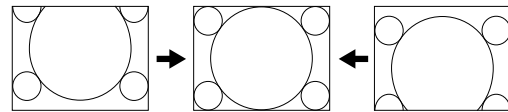
1. Adjust RV505 (V.SIZE) so that the vertical size of monoscope signal on the CRT screen is 12 frames.



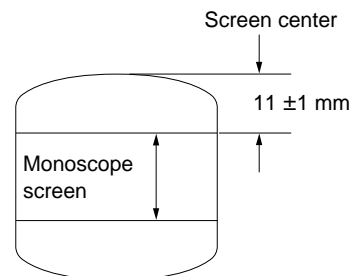
2. Adjust the vertical linearity with RV507 (V.LINE).



3. Adjust the vertical position with RV504 (V.CENT).



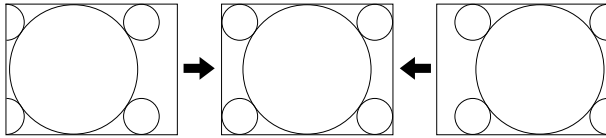
4. Press the UNDER SCAN switch of the front panel.
5. Press the 16 : 9 switch of the front panel.
6. Adjust the vertical size with RV518 (16 : 9 V.SIZE).



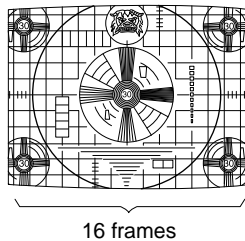
5-1-6. Horizontal Deflection System Adjustment (RV508, RV509, RV511, RV514, RV515, and RV801/P Board)

Input signal: Monoscope signal
 Switches: UNDER SCAN \Rightarrow Pull (OFF)
 16 : 9 \Rightarrow Pull (4 : 3)
 Controls: BRIGHT \Rightarrow 50 % (Center click)
 CONTR \Rightarrow 70 %

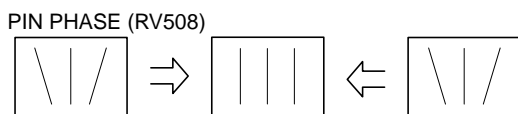
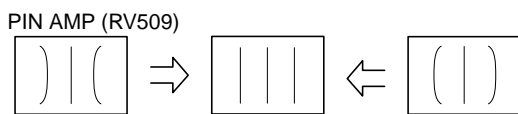
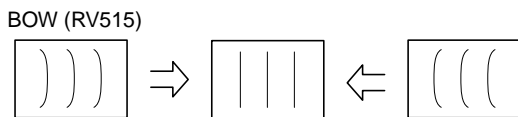
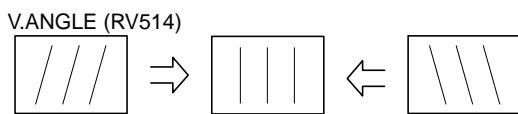
1. Adjust the horizontal position with RV801 (H.CENT).



2. Adjust RV511 (H.SIZE) so that the horizontal size of monoscope signal on the CRT screen is 16 frames.



3. While adjusting vertical angular and bow distortions with RV514 (V.ANG) and RV515 (BOW), adjust RV509 (PIN AMP) and RV508 (PIN PHASE) so that the vertical lines become straight.



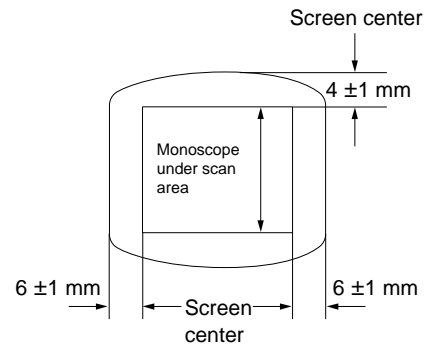
4. Adjust RV511 (H.SIZE) so that the horizontal size of monoscope signal on the CRT screen is 16 frames.

5-1-7. Under Scan Adjustment (RV517, RV512)

Input signal: Monoscope signal
 Switches: UNDER SCAN \Rightarrow Push (ON)
 16 : 9 \Rightarrow Pull (4 : 3)
 Controls: BRIGHT \Rightarrow 50 % (Center click)
 CONTR \Rightarrow 70 %

1. Adjust the horizontal size and vertical size with RV517 (U/V.SIZE) and RV512 (U/H.SIZE) as shown below.

Note: Be careful not to wane four corners.



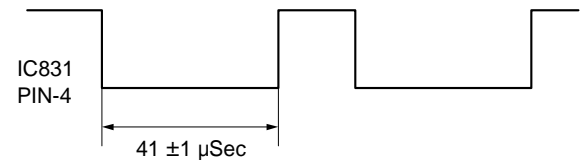
5-1-8. Horizontal/Vertical Delay Adjustment (RV832, RV831)

Input signal: Monoscope signal
 Switches: UNDER SCAN \Rightarrow Push (ON)
 16 : 9 \Rightarrow Pull (4 : 3)
 Controls: BRIGHT \Rightarrow 50 % (Center click)
 CONTR \Rightarrow 70 %

1. Connect an oscilloscope to pin 4 of IC831.

2. Horizontal Delay Adjustment (RV832)

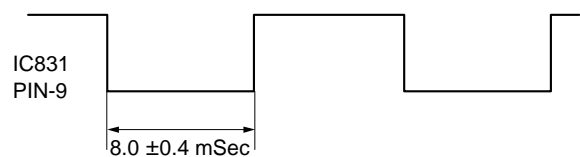
Adjust the pulse width with RV832 as shown below.



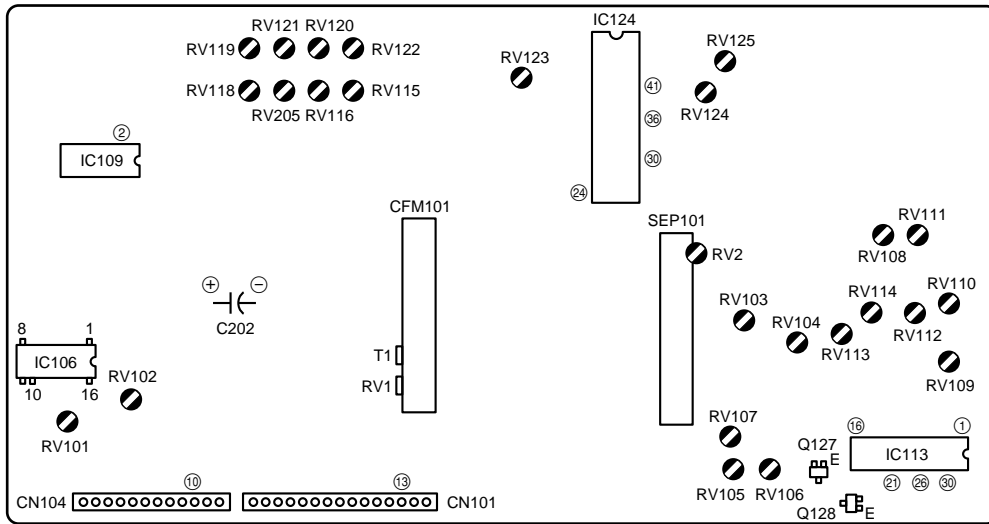
3. Connect an oscilloscope to pin 9 of IC831.

4. Vertical Delay Adjustment (RV831)

Adjust the pulse width with RV831 as shown below.



5-2. B BOARD ADJUSTMENTS



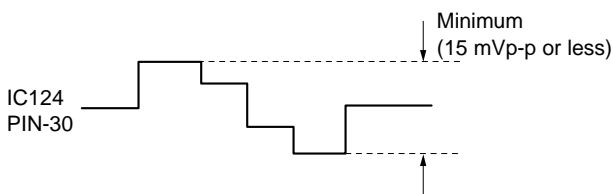
B Board Adjusting Components Location

5-2-1. Primary Color Matrix Adjustment (1) (RV115)

Input signal: Component color bars signal
(75 % chroma color bars signal)

Switches: UNDER SCAN ⇒ Pull (OFF)
16 : 9 ⇒ Pull (4 : 3)
SYNC INT/EXT ⇒ EXT
LINE/RGB ⇒ RGB

1. Supply a sync signal from the test signal generator to EXT SYNC IN connector of the rear panel.
2. Supply Y signal and R-Y signal from the test signal generator to RGB/COMPONENT connector of the rear panel.
3. Connect an oscilloscope to pin 30 (B OUT) of IC124.
4. Adjust RV115 (SUB HUE) to minimize (15 mVp-p or less) the B signal level.



5-2-2. Primary Color Matrix Adjustment (2) (RV116, RV123)

Input signal: Component color bars signal
(75 % chroma color bars signal)

Switches: UNDER SCAN ⇒ Pull (OFF)
16 : 9 ⇒ Pull (4 : 3)
SYNC INT/EXT ⇒ INT
LINE/RGB ⇒ RGB

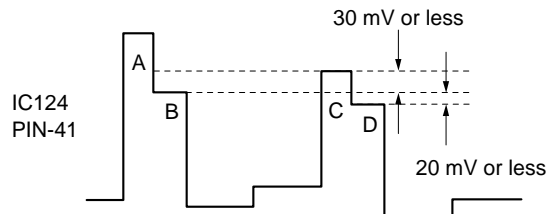
1. Supply Y, R-Y, and B-Y signals from the test signal generator to RGB/COMPONENT connectors.
2. Connect an oscilloscope to pin 30 (B OUT) of IC124.
3. Adjust RV116 (SUB COL) to minimize each peak level (20 mVp-p or less). Adjust so that the 1st and the 4th peaks should have the same level.



4. Connect an oscilloscope to pin 41 (R OUT) of IC124.
5. Adjust RV123 (MATRIX R-Y) so that the level difference of R signal is shown below.

Specification:

Level difference of B and D = Minimum (20 mV or less)
Level difference of B and C = Minimum (30 mV or less)

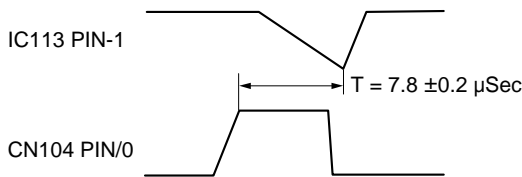


5-2-3. Burst Gate Pulse Width Adjustment (RV109)

Input signal: Color bars signal (LINE A/VIDEO IN)
 Switches: UNDER SCAN ⇒ Pull (OFF)
 16 : 9 ⇒ Pull (4 : 3)
 SYNC INT/EXT ⇒ INT
 LINE/RGB ⇒ LINE

1. Connect an oscilloscope to pin 10 (COMP SYNC) of CN104 and pin 1 (BGP GEN) of IC113.
2. Adjust the pulse width (T) with RV109 (BGP WIDTH) as shown below.

Specification: $T = 7.8 \pm 0.2 \mu\text{sec}$



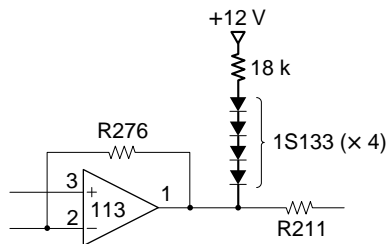
5-2-4. NTSC Subcarrier Frequency Adjustment (RV1400)

Input signal: NTSC Color bars signal (LINE A/VIDEO IN)
 Switches: UNDER SCAN ⇒ Pull (OFF)
 16 : 9 ⇒ Pull (4 : 3)
 SYNC INT/EXT ⇒ INT
 LINE/RGB ⇒ LINE

1. Apply +5 V to pin 26 of IC113 via 4.7 kΩ resistor.
2. Connect pin 2 of IC109 to ground.
3. Connect the following circuit to pin 1 of IC113.

Part Required

Resistor 18 kΩ 1 pc
 Diode 1SS133 4 pcs



4. Connect the frequency counter to pin 21 of IC113.
5. Adjust the frequency with RV1400 (3.58 F0).

Specification: $F_0 = 3,579,545 \pm 20 \text{ Hz}$

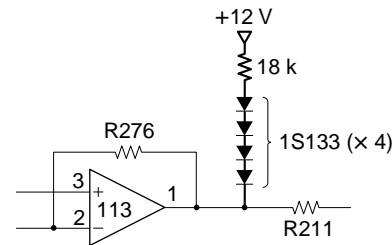
5-2-5. PAL Subcarrier Frequency Adjustment (RV1401)

Input signal: PAL Color bars signal (LINE A/VIDEO IN)
 Switches: UNDER SCAN ⇒ Pull (OFF)
 16 : 9 ⇒ Pull (4 : 3)
 SYNC INT/EXT ⇒ INT
 LINE/RGB ⇒ LINE

1. Apply +5 V to pin 26 of IC113 via 4.7 kΩ resistor.
2. Connect pin 2 of IC109 to +12 V line.
3. Connect the following circuit to pin 1 of IC113.

Part Required

Resistor 18 kΩ 1 pc
 Diode 1SS133 4 pcs



4. Connect the frequency counter to pin 21 of IC113.
5. Adjust the frequency with RV1401 (4.43 F0).

Specification: $F_0 = 4,433,619 \pm 20 \text{ Hz}$

5-2-6. NTSC Comb Filter Adjustment (RV1, T1/CFM101)

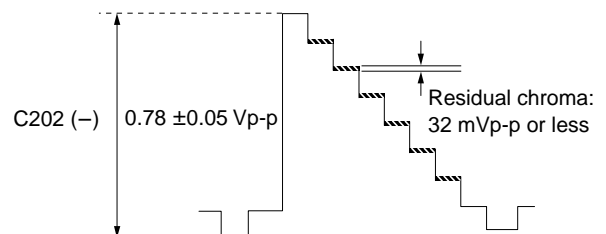
Input signal: NTSC Color bars signal (LINE A/VIDEO IN)
 Switches: UNDER SCAN ⇒ Pull (OFF)
 16 : 9 ⇒ Pull (4 : 3)
 SYNC INT/EXT ⇒ INT
 LINE/RGB ⇒ LINE

1. Connect an oscilloscope to minus (-) terminal of capacitor C202, and confirm the Y and residual chroma levels.

Specification:

Y level = $0.78 \pm 0.05 \text{ Vp-p}$
 Residual chroma level = 32 mVp-p or less

2. If the residual chroma level is out of specification, adjust RV1 and T1 alternately so that it is minimum.

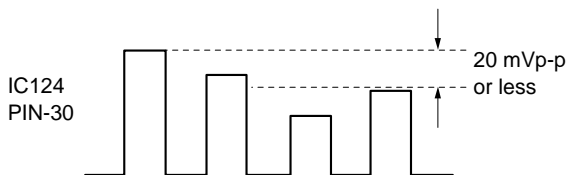


5-2-7. NTSC 3.58 MHz Color Demodulation (B-Y) Adjustment (RV114, RV111)

Input signal: 3.58 MHz NTSC 75 % Color bars signal
(Set Y and B-Y of test signal generator to off.)

Switches: SYNC INT/EXT \Rightarrow INT
LINE/RGB \Rightarrow LINE

1. Connect an oscilloscope to emitter of Q128.
2. Adjust RV114 (3.58 NTSC HUE) so that the level other than the burst portion is flat (Voltage difference = 10 mV or less).
3. Set Y and B-Y of test signal generator to on.
4. Connect an oscilloscope to pin 30 of IC124.
5. Adjust RV111 (3.58 NTSC COL) so that the level difference of B signal is minimum (20 mVp-p or less). Adjust so that the 1st and the 4th peaks should have the same level.



5-2-8. NTSC 3.58 MHz Color Demodulation (R-Y) Adjustment (RV104, RV107)

Input signal: 3.58 MHz NTSC 75 % Color bars signal
(Set Y and R-Y of test signal generator to off.)

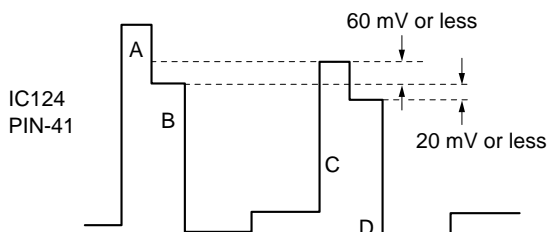
Switches: SYNC INT/EXT \Rightarrow INT
LINE/RGB \Rightarrow LINE

1. Connect an oscilloscope to emitter of Q127.
2. Adjust RV104 (3.58 NTSC SHIFT) so that the R level is flat (Voltage difference = ± 15 mV or less).
3. Set Y and R-Y of test signal generator to on.
4. Connect an oscilloscope to pin 41 of IC124.
5. Adjust RV107 (3.58 NTSC COL) so that the level difference of R signal is minimum.

Specification:

Level difference of B and D = Minimum (20 mV or less)

Level difference of B and C = Minimum (60 mV or less)



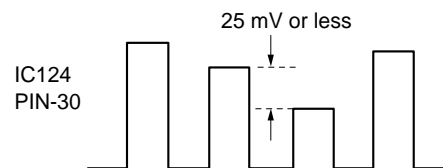
6. After adjustment, perform section "5-2-7. NTSC 3.58 MHz Color Demodulation (B-Y) Adjustment" again.

5-2-9. NTSC 4.43 MHz Color Demodulation Adjustment (RV108, RV112)

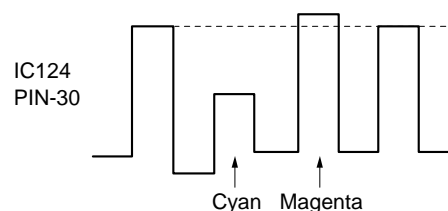
Input signal: 4.43 MHz NTSC 75 % Color bars signal
(Set Y and B-Y of test signal generator to off.)

Switches: SYNC INT/EXT \Rightarrow INT
LINE/RGB \Rightarrow LINE

1. Connect an oscilloscope to pin 30 of IC124.
2. Adjust RV108 (4.43 NTSC COL) so that the level is flat (Voltage difference = 25 mV or less).



3. If cyan and magenta levels are different, adjust RV112 (4.43 NTSC HUE) and RV108 (4.43 NTSC COL) alternately.

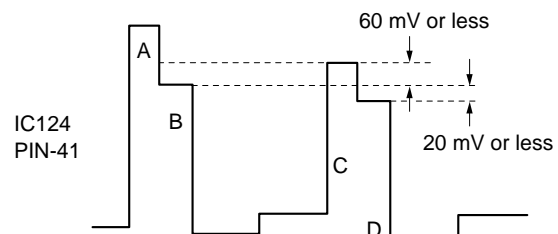


4. Connect an oscilloscope to emitter of Q127.
5. Adjust RV103 (4.43 NTSC SHIFT) so that the R level is flat (Voltage difference = ± 15 mV or less).
6. Connect an oscilloscope to pin 41 of IC124.
7. Adjust RV106 (4.43 NTSC COL) so that the level difference of R signal is minimum.

Specification:

Level difference of B and D = Minimum (20 mV or less)

Level difference of B and C = Minimum (60 mV or less)



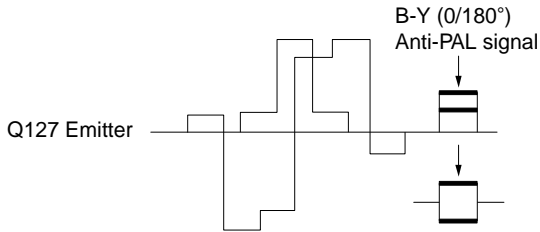
8. After adjustment, readjust from steps 1 to 7.

5-2-10. PAL Color Demodulation Adjustment (RV113, RV2/SEP101, RV110, RV105)

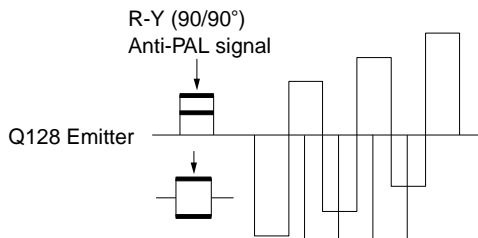
Input signal: PAL Special Color bars signal
PAL Color bars signal

Switches: SYNC INT/EXT ⇒ INT
LINE/RGB ⇒ LINE

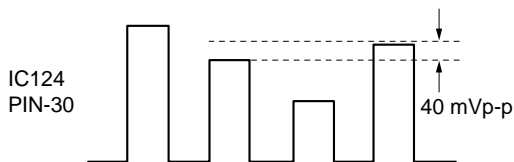
1. Connect an oscilloscope to emitter of Q127.
2. Adjust RV113 (PAL HUE) so that the B-Y (0/180°) anti-PAL signal on the R-Y demodulated signal is flat.



3. Connect an oscilloscope to emitter of Q128.
4. Adjust RV2 on the SEP101 so that the R-Y (90/90°) anti-PAL signal on the B-Y demodulated signal is flat.



5. Turn CHROMA control of the front panel maximum clockwise, and make sure of no color is visible at the anti-PAL signal portion on the CRT screen.
6. Input the PAL color bars signal.
7. Connect an oscilloscope to pin 30 of IC124.
8. Adjust RV110 (PAL COL) to minimize each peak level.

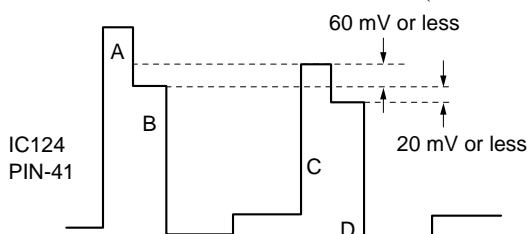


9. Connect an oscilloscope to pin 41 of IC124.
10. Adjust RV105 (PAL COL) so that the level difference of R signal is minimum.

Specification:

Level difference of B and D = Minimum (20 mV or less)

Level difference of B and C = Minimum (60 mV or less)



11. After adjustment, readjust from steps 7 to 10.

5-2-11. Sub-Sharpness Adjustment (RV205)

Input signal: Sweep signal

Bandwidth: 10 MHz or more (flat)

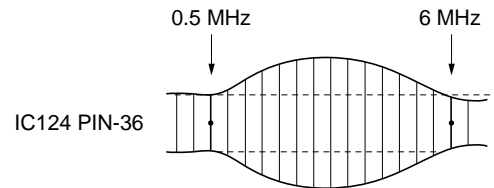
Burst: OFF

Composite Sync: ON

Switches: SYNC INT/EXT ⇒ INT

LINE/RGB ⇒ LINE

1. Connect an oscilloscope to pin 36 of IC124.
2. Adjust RV205 (SUB SHARP) so that the 0.5 MHz and 6 MHz portions of the sweep signal is equal level (0 ± 0.5 dB).



5-2-12. Chroma H Pulse Adjustment (RV101, RV102)

Input signal: SECAM Color Bars signal

Switches: SYNC INT/EXT ⇒ INT

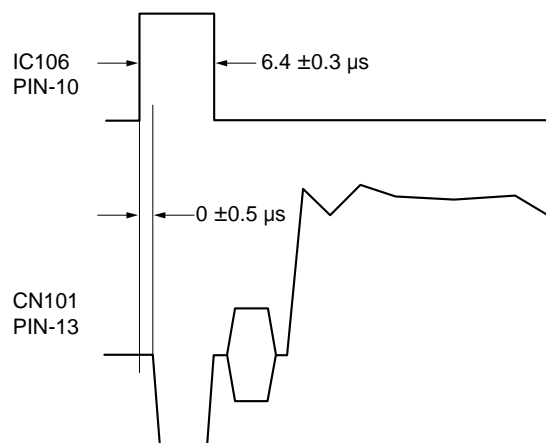
LINE/RGB ⇒ LINE

1. Connect an oscilloscope to pin 10 of IC106 and pin 13 of CN101.
2. Adjust RV101 (PULSE WIDTH) so that the pulse width is shown in the following specification.

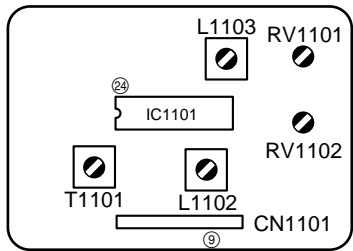
Specification: Pulse width = $6.4 \pm 0.3 \mu\text{s}$

3. Adjust RV102 (PULSE POSI) so that the phase difference of H sync to chroma H pulse is shown in the following specification.

Specification: Phase difference = $0 \pm 0.5 \mu\text{s}$



5-3. S BOARD ADJUSTMENTS

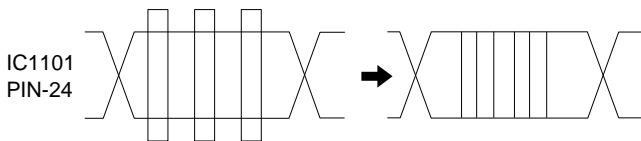


S Board Adjusting Components Location

5-3-1. SECAM Bell Filter Adjustment (T1101)

Input signal: SECAM color bars signal
 Switches: SYNC INT/EXT \Rightarrow INT
 LINE/RGB \Rightarrow LINE

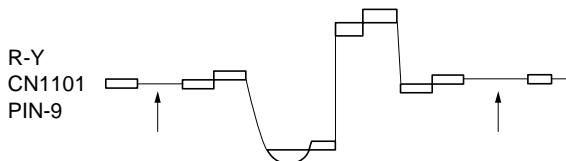
1. Connect an oscilloscope to pin 24 of IC1101.
2. Adjust T1101 (BELL FILTER) so that the envelope of chroma signal is flat.



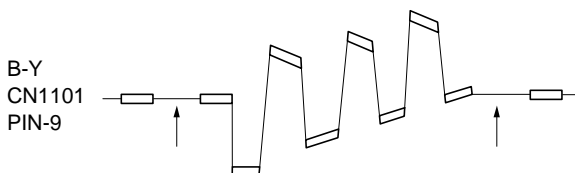
5-3-2. SECAM Color Balance Adjustment (L1102, L1103)

Input signal: SECAM color bars signal
 Switches: SYNC INT/EXT \Rightarrow INT
 LINE/RGB \Rightarrow LINE

1. Connect an oscilloscope to pin 9 of CN1101.
2. Adjust L1102 so that no chroma component (no colored) portions of R-Y signal is flat.



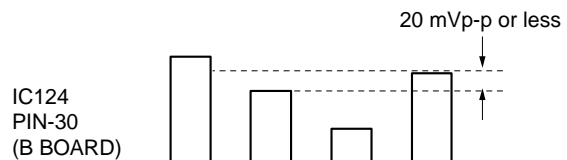
3. Adjust L1103 so that no chroma component (no colored) portions of B-Y signal is flat.



5-3-3. SECAM Demodulation Level Adjustment (RV1101, RV1102)

Input signal: SECAM color bars signal
 Switches: SYNC INT/EXT \Rightarrow INT
 LINE/RGB \Rightarrow LINE

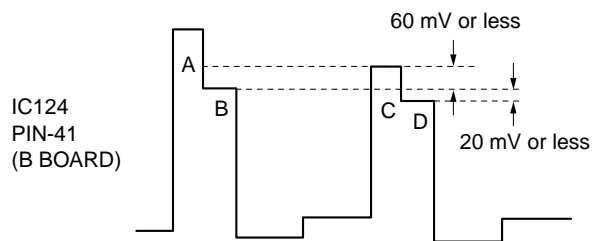
1. Connect an oscilloscope to pin 30 of IC124 on the B board.
2. Adjust RV1101 (SECAM COL) so that the peak level difference of B signal is minimum (20 mVp-p or less). Adjust so that the 1st and the 4th peaks should have the same level.



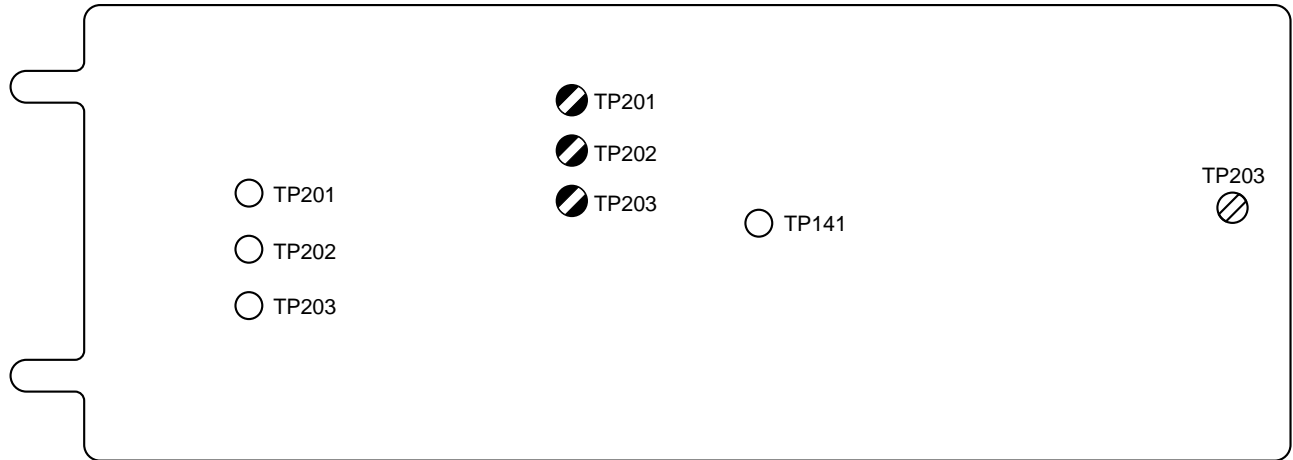
3. Connect an oscilloscope to pin 41 of IC124 on the B board.
4. Adjust RV1102 (SECAM R-Y) so that the level difference of R signal is minimum.

Specification:

Level difference of B and D = Minimum (20 mV or less)
 Level difference of B and C = Minimum (60 mV or less)



5-4. BV BOARD ADJUSTMENTS



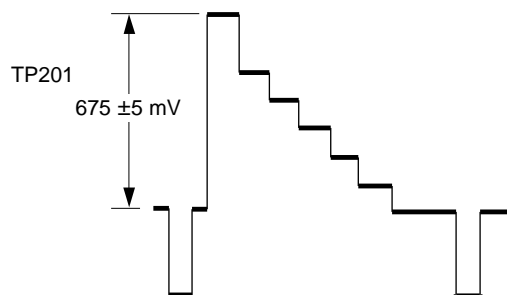
BV Board Adjusting Components Location

5-4-1. 13.5 MHz Clock Adjustment (RV101)

1. Turn on the power and wait about 10 minutes.
2. Connect a frequency counter to TP141.
3. Adjust RV101 (VCO ADJ) so that the frequency is 13.5 ± 0.1 MHz.

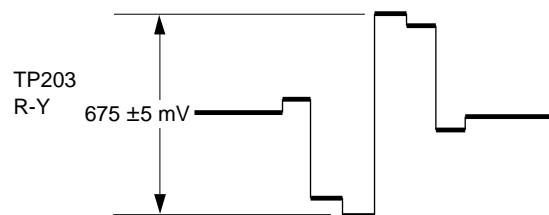
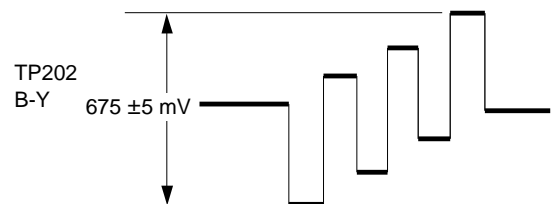
5-4-2. Y System Gain Adjustment (RV201)

1. Input the D1 color bars signal from the test signal generator to COMPONENT SDI IN connector.
2. Connect an oscilloscope to TP201.
3. Adjust RV201 (Y GAIN) so that the Y level is 675 ± 5 mV.



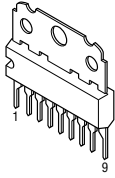
5-4-3. B-Y, R-Y Gain Adjustment (RV202, RV203)

1. Input the D1 color bars signal from the test signal generator to COMPONENT SDI IN connector.
2. Connect an oscilloscope to TP202 and TP203.
3. Adjust RV202 (B-Y GAIN) and RV203 (R-Y GAIN) so that the B-Y and R-Y levels are 675 ± 5 mV respectively.

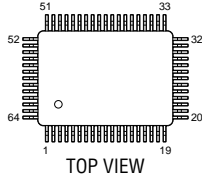


SECTION 6 SEMICONDUCTORS

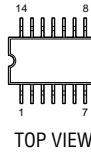
AN5265



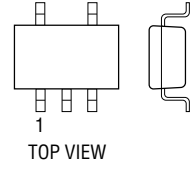
CXD2308Q



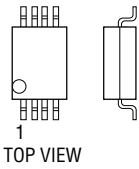
MC74AC04ML



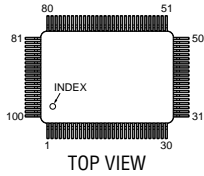
**TC4S01F
TC4S11F
TC4S81F**



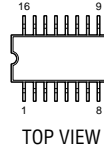
**BA10393F-E2
MM1111XFBE
MM1113XBE
MM1114XFBE
TC4W53F**



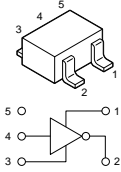
CXD8386AQ



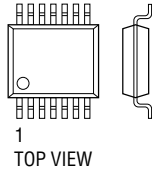
MC74HC175F-T2



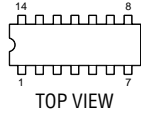
TC7S00F



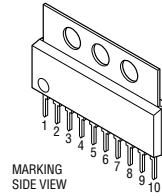
**BU4011BF-E2
MC14066BF
BU4070BF-E2
BU4584BF-E2**



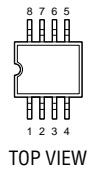
IR2112



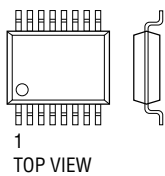
MM1113XFBE



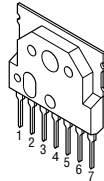
TL431CPS



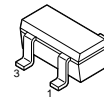
**BU4053BCF
TC4052BFHB**



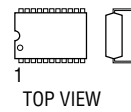
LA7830



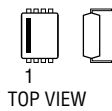
PST529CMT



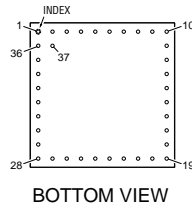
UPC1377



LM358D



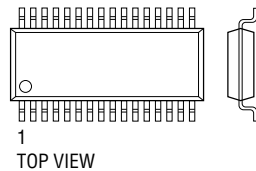
SBX1602A



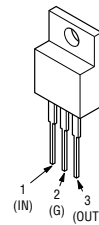
CXA1478S



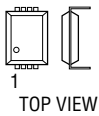
M51279FP



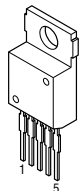
**TA7805S
TA7812S**



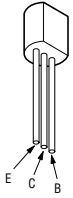
CX23025



MC14538BF



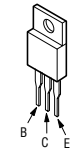
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2SC2551-0



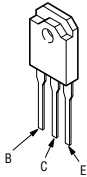
2SA1162-G
2SC1623-L5L6
DTA144EK
DTC124EK
DTC144EK-T147
DTC144EKA-T146
IRF520



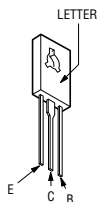
2SC2334-L
2SD1134-C
2SD835



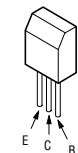
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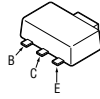
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2SX2688-LK



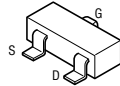
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2SD774-34



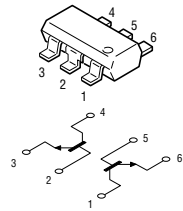
2SD1615A-GP



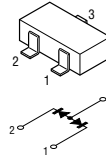
2SK94-X2X3X4
2SK94-X4



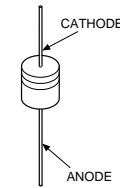
IMH2
IMX1



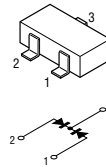
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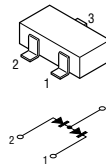
1SS119-25
RD3.6ESB1
RD5.6ESB2
RD8.2ESB3



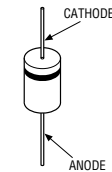
1SS184



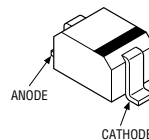
1SS226



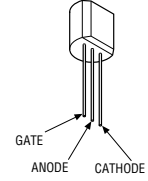
1SS83
EGP20G
EL1Z
GP08D



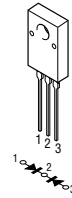
1SV230TPH3
DTZ-TT11-5.6A
DTZ15B
DTZ20B
DTZ24B
DTZ8.2B
MA111



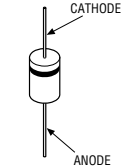
CR02AM-4TB



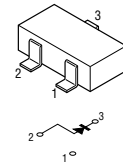
D10C4M



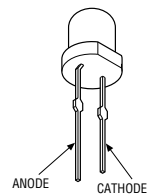
ERC81-004



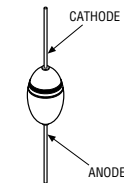
RD6.2M-B1



SEL3810DLC05
SLP281C-50



V11N



SECTION 7

EXPLODED VIEWS

NOTE:

• Items with no part number and no description are not stocked because they are seldom required for routine service.

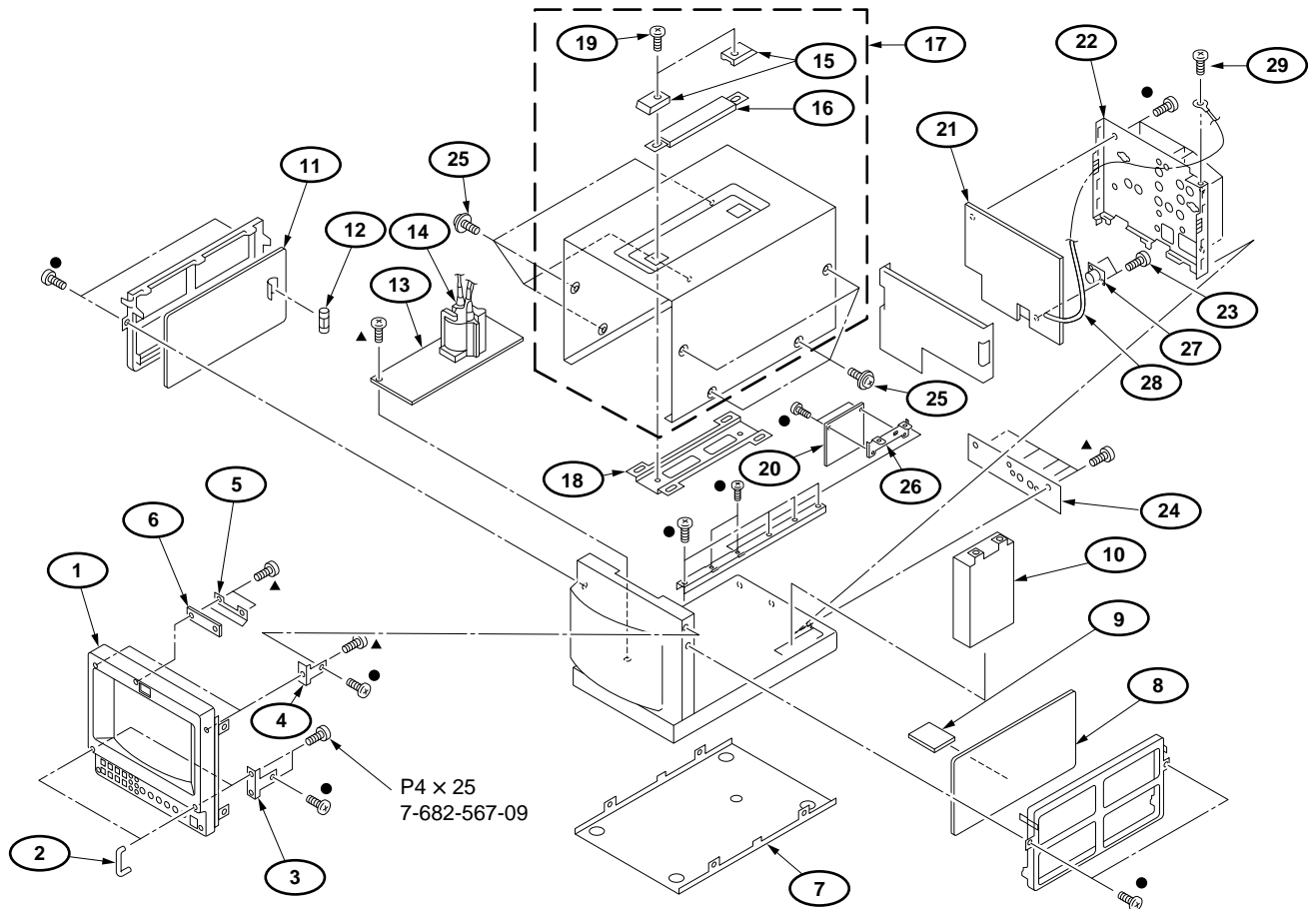
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

The components identified by mark \triangle are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque \triangle sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

7-1. CHASSIS

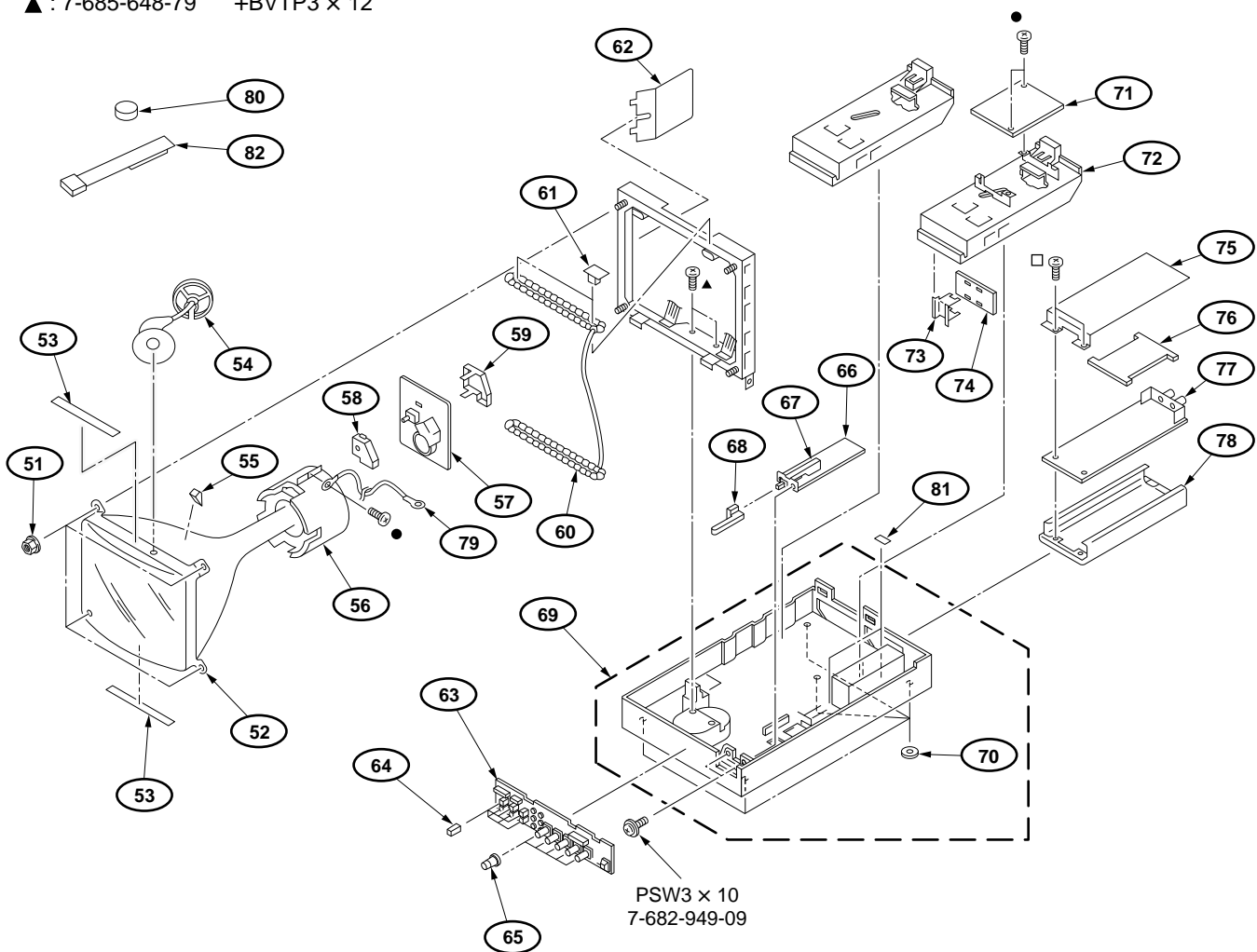
- : 7-685-646-79 +BVTP3 x 8
- ▲ : 7-685-468-79 +BVTP3 x 12



Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
1	X-4036-093-1	BEZEL ASSY		15	4-034-847-01	HANDLE (BASE)	
2	4-037-569-01	HANDLE, PROTECTOR		16	3-419-372-31	HANDLE	
3	* 4-034-845-01	BRACKET (L), BEZEL		17	* X-4032-336-1	CABINET ASSY	15, 16, 19
4	* 4-034-846-01	BRACKET (U), BEZEL		18	* X-4030-273-1	REINFORCEMENT ASSY, HANDLE	
5	* 4-035-388-01	PLATE, LIGHT INTERCEPTION		19	4-035-452-01	SCREW (M4X10)	
6	* A-1390-455-A	X BOARD, COMPLETE		20	* A-1190-333-A	PA BOARD COMPLETE	
7	* 4-034-870-02	CABINET, BOTTOM		21	* A-1275-167-A	QA BOARD, COMPLETE	
8	* A-1135-964-A	B BOARD, COMPLETE (BVM-8045QD)		22	* 4-034-864-91	CHASSIS, R	
8	* A-1135-977-A	B BOARD, COMPLETE (BVM-9045D)		23	4-035-802-01	SCREW (M2.6X6)	
9	* A-1394-917-A	S BOARD, COMPLETE		24	* 4-046-075-01	PANEL, CONNECTOR	
10	\triangle 1-413-720-21	SWITCHING REGULATOR (SOPS-1021)		25	4-034-834-01	SCREW (CLAW) (4X6), CASE	
11	* A-1346-805-A	D BOARD, COMPLETE		26	* 4-067-394-01	HOLDER, PA PWB	
12	\triangle 1-532-747-11	FUSE, GLASS TUBE (5.0A/125V)		27	* 1-900-157-02	CONNECTOR ASSY, MICRO 5P	
12	\triangle 1-576-232-11	FUSE (H.B.C) (5.0A/250V) (BVM-8045QD)		28	1-555-724-00	WIRE, GROUND (BVM-8045QD)	
13	* A-1195-146-A	P BOARD, COMPLETE	14	29	4-389-025-01	SCREW (M4) (EXT TOOTH WASHER)	
14	\triangle 1-439-526-13	TRANSFORMER ASSY, FLYBACK		29	7-685-881-09	SCREW BVTT 4X8 (BVM-9045QD)	

7-2. PICTURE TUBE

- : 7-685-645-79 +BVTP3 × 6
- : 7-685-646-79 +BVTP3 × 8
- ▲ : 7-685-648-79 +BVTP3 × 12



Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
51	4-304-511-00	NUT (M5), FLANGE		67	▲1-692-050-11	SWITCH, PUSH (AC POWER) (1 KEY) (5.0A/250V)	(BVM-4095D)
52	▲8-737-651-05	PICTURE TUBE (M20JMP10X)		67	▲1-692-049-11	SWITCH, PUSH (AC POWER) (3.0A/250V)	(BVM-9045QD)
53	4-035-332-01	CLOTH, PROTECTION		68	4-034-841-11	BUTTON, POWER SWITCH	
54	*4-034-856-01	HOLDER, HV CABLE		69	*X-4036-112-3	CHASSIS ASSY, BOTTOM	70
55	4-309-369-00	SPACER, DEFLECTION YOKE		70	4-034-840-01	RUBBER, FOOT	
56	▲1-451-319-22	DEFLECTION YOKE (Y9FXC)		71	*A-1316-193-A	GB BOARD, COMPLETE	
57	*A-1331-377-A	CA BOARD, COMPLETE	58, 59	72	*X-4032-154-1	GUIDE (GB) ASSY, BATTERY	
58	*4-376-133-11	COVER (MAIN), CV VOL		73	*4-046-072-01	SUPPORTER, PC BOARD (T)	
59	*4-376-132-11	COVER (REAR LID), CV VOL		74	*A-1390-454-A	T BOARD, COMPLETE	
60	▲1-416-882-11	COIL, DEMAGNETIC		75	*4-046-073-01	CASE (UPPER)	
61	4-380-534-01	CAP, DGC		76	*X-4032-153-1	HEAT SINK (BV) ASSY	
62	*4-034-850-01	INSULATOR		77	*A-1135-798-A	BV BOARD, COMPLETE	
63	*A-1372-584-A	HA BOARD, COMPLETE		78	*4-046-076-01	CASE (MAIN)	
64	4-034-849-01	SWITCH (SMALL), PUSH		79	*1-923-511-84	WIRE UL1007 AWG18 110MM BLK	
65	4-043-802-02	KNOB, CONTROL		80	*1-452-884-11	MAGNET	
66	*A-1241-164-A	FA BOARD, COMPLETE (BVM-9045D)		81	*3-703-044-26	LABEL, CAUTION (BVM-8045QD)	
66	*A-1241-176-A	FA BOARD, COMPLETE (BVM-8045QD) 67		82	4-051-735-22	PIECE A (75), CONV.CORRECT	

SECTION 8

ELECTRICAL PARTS LIST

NOTE:

The components identified by mark Δ are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifique.

- Items marked “*” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

RESISTORS

- All resistors are in ohms
- F: nonflammable

When indicating parts by reference number, please include the board name.

CAPACITORS

PF: $\mu\mu F$

- There are some cases the reference number on one board overlaps on the other board. Therefore, when ordering parts by the reference number, please include the board name.
- The components identified by Δ in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.



Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
* A-1135-798-A COMPLETE PWB, BV *****				C59	1-163-038-91	CERAMIC CHIP 0.1μF	25V
1-537-806-11 TERMINAL BOARD ASSY, I/O				C60	1-163-038-91	CERAMIC CHIP 0.1μF	25V
<CAPACITOR>				C61	1-163-038-91	CERAMIC CHIP 0.1μF	25V
C1	1-163-038-91	CERAMIC CHIP 0.1μF	25V	C62	1-163-038-91	CERAMIC CHIP 0.1μF	25V
C2	1-163-038-91	CERAMIC CHIP 0.1μF	25V	C63	1-163-038-91	CERAMIC CHIP 0.1μF	25V
C3	1-163-038-91	CERAMIC CHIP 0.1μF	25V	C64	1-163-038-91	CERAMIC CHIP 0.1μF	25V
C4	1-163-038-91	CERAMIC CHIP 0.1μF	25V	C65	1-163-038-91	CERAMIC CHIP 0.1μF	25V
C5	1-163-038-91	CERAMIC CHIP 0.1μF	25V	C66	1-163-038-91	CERAMIC CHIP 0.1μF	25V
C6	1-163-038-91	CERAMIC CHIP 0.1μF	25V	C67	1-163-038-91	CERAMIC CHIP 0.1μF	25V
C7	1-163-038-91	CERAMIC CHIP 0.1μF	25V	C101	1-163-243-11	CERAMIC CHIP 47PF	5% 50V
C8	1-163-038-91	CERAMIC CHIP 0.1μF	25V	C102	1-163-243-11	CERAMIC CHIP 47PF	5% 50V
C9	1-163-038-91	CERAMIC CHIP 0.1μF	25V	C103	1-124-779-00	ELECT CHIP 10μF	20% 16V
C10	1-163-038-91	CERAMIC CHIP 0.1μF	25V	C104	1-163-038-91	CERAMIC CHIP 0.1μF	25V
C11	1-126-206-11	ELECT CHIP 100μF	20% 6.3V	C105	1-164-346-11	CERAMIC CHIP 1μF	16V
C12	1-126-206-11	ELECT CHIP 100μF	20% 6.3V	C106	1-164-346-11	CERAMIC CHIP 1μF	16V
C13	1-126-206-11	ELECT CHIP 100μF	20% 6.3V	C107	1-163-038-91	CERAMIC CHIP 0.1μF	25V
C14	1-126-206-11	ELECT CHIP 100μF	20% 6.3V	C108	1-124-779-00	ELECT CHIP 10μF	20% 16V
C15	1-126-206-11	ELECT CHIP 100μF	20% 6.3V	C109	1-124-779-00	ELECT CHIP 10μF	20% 16V
C16	1-126-205-11	ELECT CHIP 47μF	20% 6.3V	C141	1-163-031-11	CERAMIC CHIP 0.01μF	50V
C17	1-126-205-11	ELECT CHIP 47μF	20% 6.3V	C142	1-163-031-11	CERAMIC CHIP 0.01μF	50V
C18	1-126-205-11	ELECT CHIP 47μF	20% 6.3V	C143	1-163-031-11	CERAMIC CHIP 0.01μF	50V
C19	1-126-205-11	ELECT CHIP 47μF	20% 6.3V	C144	1-163-031-11	CERAMIC CHIP 0.01μF	50V
C20	1-126-205-11	ELECT CHIP 47μF	20% 6.3V	C145	1-163-031-11	CERAMIC CHIP 0.01μF	50V
C21	1-126-205-11	ELECT CHIP 47μF	20% 6.3V	C146	1-163-031-11	CERAMIC CHIP 0.01μF	50V
C22	1-124-778-00	ELECT CHIP 22μF	20% 6.3V	C147	1-163-031-11	CERAMIC CHIP 0.01μF	50V
C23	1-124-778-00	ELECT CHIP 22μF	20% 6.3V	C148	1-163-031-11	CERAMIC CHIP 0.01μF	50V
C24	1-163-038-91	CERAMIC CHIP 0.1μF	25V	C149	1-163-031-11	CERAMIC CHIP 0.01μF	50V
C25	1-163-038-91	CERAMIC CHIP 0.1μF	25V	C150	1-163-031-11	CERAMIC CHIP 0.01μF	50V
C26	1-163-038-91	CERAMIC CHIP 0.1μF	25V	C151	1-163-031-11	CERAMIC CHIP 0.01μF	50V
C27	1-163-038-91	CERAMIC CHIP 0.1μF	25V	C152	1-163-031-11	CERAMIC CHIP 0.01μF	50V
C28	1-163-038-91	CERAMIC CHIP 0.1μF	25V	C153	1-163-031-11	CERAMIC CHIP 0.01μF	50V
C31	1-163-038-91	CERAMIC CHIP 0.1μF	25V	C154	1-163-031-11	CERAMIC CHIP 0.01μF	50V
C32	1-163-038-91	CERAMIC CHIP 0.1μF	25V	C155	1-163-031-11	CERAMIC CHIP 0.01μF	50V
C33	1-163-038-91	CERAMIC CHIP 0.1μF	25V	C156	1-163-031-11	CERAMIC CHIP 0.01μF	50V
C34	1-163-038-91	CERAMIC CHIP 0.1μF	25V	C157	1-163-031-11	CERAMIC CHIP 0.01μF	50V
C35	1-163-038-91	CERAMIC CHIP 0.1μF	25V	C158	1-163-031-11	CERAMIC CHIP 0.01μF	50V
C36	1-163-038-91	CERAMIC CHIP 0.1μF	25V	C159	1-163-031-11	CERAMIC CHIP 0.01μF	50V
C41	1-163-038-91	CERAMIC CHIP 0.1μF	25V	C160	1-163-031-11	CERAMIC CHIP 0.01μF	50V
C42	1-163-038-91	CERAMIC CHIP 0.1μF	25V	C161	1-163-031-11	CERAMIC CHIP 0.01μF	50V
C43	1-163-038-91	CERAMIC CHIP 0.1μF	25V	C162	1-163-031-11	CERAMIC CHIP 0.01μF	50V
C44	1-163-038-91	CERAMIC CHIP 0.1μF	25V	C163	1-163-093-00	CERAMIC CHIP 10PF	5% 50V
C45	1-163-038-91	CERAMIC CHIP 0.1μF	25V	C182	1-163-125-00	CERAMIC CHIP 220PF	5% 50V
C46	1-163-038-91	CERAMIC CHIP 0.1μF	25V	C183	1-163-121-00	CERAMIC CHIP 150PF	5% 50V
C47	1-163-038-91	CERAMIC CHIP 0.1μF	25V	C184	1-163-107-00	CERAMIC CHIP 39PF	5% 50V
C48	1-163-038-91	CERAMIC CHIP 0.1μF	25V	C185	1-126-395-11	ELECT CHIP 22μF	20% 16V
C49	1-163-038-91	CERAMIC CHIP 0.1μF	25V	C201	1-163-038-91	CERAMIC CHIP 0.1μF	25V
C50	1-163-038-91	CERAMIC CHIP 0.1μF	25V	C202	1-163-038-91	CERAMIC CHIP 0.1μF	25V
C51	1-163-038-91	CERAMIC CHIP 0.1μF	25V	C203	1-163-038-91	CERAMIC CHIP 0.1μF	25V
C52	1-163-038-91	CERAMIC CHIP 0.1μF	25V	C204	1-163-038-91	CERAMIC CHIP 0.1μF	25V
C53	1-163-038-91	CERAMIC CHIP 0.1μF	25V	C205	1-124-779-00	ELECT CHIP 10μF	20% 16V
C54	1-163-038-91	CERAMIC CHIP 0.1μF	25V	C212	1-126-395-11	ELECT CHIP 22μF	20% 16V
C55	1-163-038-91	CERAMIC CHIP 0.1μF	25V	C222	1-126-395-11	ELECT CHIP 22μF	20% 16V
C56	1-163-038-91	CERAMIC CHIP 0.1μF	25V	C232	1-126-395-11	ELECT CHIP 22μF	20% 16V
C57	1-163-038-91	CERAMIC CHIP 0.1μF	25V	C241	1-163-251-11	CERAMIC CHIP 100PF	5% 50V
C58	1-163-038-91	CERAMIC CHIP 0.1μF	25V	C242	1-163-038-91	CERAMIC CHIP 0.1μF	25V
				C244	1-163-038-91	CERAMIC CHIP 0.1μF	25V
				C245	1-126-513-11	ELECT 47μF	20% 6.3V

Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
		<CONNECTOR>		Q153	8-729-122-63	TRANSISTOR 2SA1226-E4	
CN12	* 1-766-746-11	CONNECTOR, BOARD TO BOARD 12P		Q154	8-729-122-63	TRANSISTOR 2SA1226-E4	
		<DIODE>		Q155	8-729-122-63	TRANSISTOR 2SA1226-E4	
D241	8-719-800-76	DIODE 1SS226		Q156	8-729-122-63	TRANSISTOR 2SA1226-E4	
		<FERRITE BEAD>		Q157	8-729-122-63	TRANSISTOR 2SA1226-E4	
FB1	1-410-397-21	FERRITE 1.1μH		Q158	8-729-122-63	TRANSISTOR 2SA1226-E4	
		<FILTER>		Q159	8-729-122-63	TRANSISTOR 2SA1226-E4	
FL101	1-239-384-11	FILTER, EMI		Q160	8-729-122-63	TRANSISTOR 2SA1226-E4	
FL200	1-409-898-11	DELAY LINE		Q161	8-729-122-63	TRANSISTOR 2SA1226-E4	
FL201	1-233-241-11	FILTER, LOW PASS		Q162	8-729-122-63	TRANSISTOR 2SA1226-E4	
FL202	1-239-384-11	FILTER, EMI		Q181	1-801-806-11	TRANSISTOR DTC144EK-T146	
FL203	1-233-242-11	FILTER, LOW PASS		Q182	1-801-806-11	TRANSISTOR DTC144EK-T146	
FL204	1-239-183-11	FILTER, EMI		Q183	8-729-122-63	TRANSISTOR 2SA1226-E4	
FL205	1-233-243-11	FILTER, LOW PASS		Q201	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
FL206	1-239-384-11	FILTER, EMI		Q202	8-729-216-22	TRANSISTOR 2SA1162-G	
		<IC>		Q203	8-729-216-22	TRANSISTOR 2SA1162-G	
IC101	* 1-540-106-11	SOCKET, IC		Q241	8-729-216-22	TRANSISTOR 2SA1162-G	
IC101	8-741-602-21	HYB IC SBX1602A		Q242	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
IC102	8-759-035-87	IC SC7S00F				<RESISTOR>	
IC103	8-759-991-19	IC PST529CMT		R101	1-216-624-11	METAL CHIP 75	0.50% 1/10W
IC141	8-759-086-98	IC TC74ACT04F-EL		R102	1-218-753-11	METAL CHIP 110K	0.50% 1/10W
IC142	8-759-086-98	IC TC74ACT04F-EL		R103	1-216-699-11	METAL CHIP 100K	0.50% 1/10W
IC143	8-759-035-93	IC SC7S32F		R104	1-216-073-00	RES,CHIP 10K	5% 1/10W
IC144	8-759-172-72	IC CXD8386AQ		R105	1-216-295-91	SHORT 0	
IC145	8-759-036-25	IC MC74AC04M		R106	1-216-073-00	RES,CHIP 10K	5% 1/10W
IC181	8-759-925-72	IC SN74HC02ANS		R107	1-216-073-00	RES,CHIP 10K	5% 1/10W
IC182	8-759-008-48	IC MC74HC86F		R108	1-216-073-00	RES,CHIP 10K	5% 1/10W
IC183	8-759-007-80	IC MC74HC175F		R109	1-216-073-00	RES,CHIP 10K	5% 1/10W
IC201	8-752-357-63	IC CXD2308Q		R110	1-216-651-11	METAL CHIP 1K	0.50% 1/10W
IC202	8-759-929-26	IC TL431CPS		R111	1-216-033-00	RES,CHIP 220	5% 1/10W
		<TRANSISTOR>		R112	1-216-033-00	RES,CHIP 220	5% 1/10W
Q101	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R113	1-216-023-00	RES,CHIP 82	5% 1/10W
Q102	8-729-101-11	TRANSISTOR 2SC2351-R2		R114	1-216-013-00	RES,CHIP 33	5% 1/10W
Q103	8-729-101-11	TRANSISTOR 2SC2351-R2		R115	1-216-624-11	METAL CHIP 75	0.50% 1/10W
Q104	8-729-216-22	TRANSISTOR 2SA1162-G		R116	1-216-023-00	RES,CHIP 82	5% 1/10W
Q105	8-729-901-06	TRANSISTOR DTA144EK		R117	1-216-013-00	RES,CHIP 33	5% 1/10W
Q141	8-729-122-63	TRANSISTOR 2SA1226-E4		R118	1-216-624-11	METAL CHIP 75	0.50% 1/10W
Q142	8-729-122-63	TRANSISTOR 2SA1226-E4		R119	1-216-624-11	METAL CHIP 75	0.50% 1/10W
Q143	8-729-122-63	TRANSISTOR 2SA1226-E4		R120	1-216-067-00	RES,CHIP 5.6K	5% 1/10W
Q144	8-729-122-63	TRANSISTOR 2SA1226-E4		R121	1-216-064-00	RES,CHIP 4.3K	5% 1/10W
Q145	8-729-122-63	TRANSISTOR 2SA1226-E4		R122	1-216-049-91	RES,CHIP 1K	5% 1/10W
Q146	8-729-122-63	TRANSISTOR 2SA1226-E4		R123	1-216-073-00	RES,CHIP 10K	5% 1/10W
Q147	8-729-122-63	TRANSISTOR 2SA1226-E4		R124	1-216-081-00	RES,CHIP 22K	5% 1/10W
Q148	8-729-122-63	TRANSISTOR 2SA1226-E4		R125	1-216-049-91	RES,CHIP 1K	5% 1/10W
Q149	8-729-122-63	TRANSISTOR 2SA1226-E4		R126	1-216-049-91	RES,CHIP 1K	5% 1/10W
Q150	8-729-122-63	TRANSISTOR 2SA1226-E4		R130	1-216-049-91	RES,CHIP 1K	5% 1/10W
Q151	8-729-122-63	TRANSISTOR 2SA1226-E4		R131	1-216-049-91	RES,CHIP 1K	5% 1/10W
Q152	8-729-122-63	TRANSISTOR 2SA1226-E4		R132	1-216-049-91	RES,CHIP 1K	5% 1/10W
				R133	1-216-049-91	RES,CHIP 1K	5% 1/10W
				R134	1-216-049-91	RES,CHIP 1K	5% 1/10W
				R135	1-216-049-91	RES,CHIP 1K	5% 1/10W
				R136	1-216-049-91	RES,CHIP 1K	5% 1/10W
				R137	1-216-049-91	RES,CHIP 1K	5% 1/10W
				R138	1-216-049-91	RES,CHIP 1K	5% 1/10W
				R139	1-216-049-91	RES,CHIP 1K	5% 1/10W
				R141	1-216-025-91	RES,CHIP 100	5% 1/10W
				R142	1-216-025-91	RES,CHIP 100	5% 1/10W

Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
C126	1-163-031-11	CERAMIC CHIP 0.01μF	50V	C186	1-163-233-11	CERAMIC CHIP 18PF	5% 50V
C127	1-124-589-11	ELECT 47μF	20% 6.3V	C187	1-163-031-11	CERAMIC CHIP 0.01μF	50V
C128	1-124-589-11	ELECT 47μF	20% 6.3V	C188	1-163-031-11	CERAMIC CHIP 0.01μF	50V
C129	1-163-031-11	CERAMIC CHIP 0.01μF	50V	C189	1-163-035-00	CERAMIC CHIP 0.047μF	50V
C130	1-163-031-11	CERAMIC CHIP 0.01μF	50V	C190	1-163-121-00	CERAMIC CHIP 150PF	5% 50V
C131	1-163-031-11	CERAMIC CHIP 0.01μF	50V	C192	1-163-031-11	CERAMIC CHIP 0.01μF	50V
C132	1-124-589-11	ELECT 47μF	20% 16V	C193	1-124-589-11	ELECT 47μF	20% 16V
C133	1-124-589-11	ELECT 47μF	20% 16V	C194	1-124-589-11	ELECT 47μF	20% 16V
C134	1-163-275-11	CERAMIC CHIP 0.001μF	5% 50V	C195	1-124-589-11	ELECT 47μF	20% 16V
C135	1-163-113-00	CERAMIC CHIP 68PF	5% 50V	C196	1-124-589-11	ELECT 47μF	20% 16V
C137	1-163-249-11	CERAMIC CHIP 82PF	5% 50V	C197	1-124-589-11	ELECT 47μF	20% 16V
C138	1-124-589-11	ELECT 47μF	20% 16V	C198	1-124-589-11	ELECT 47μF	20% 16V
C139	1-163-031-11	CERAMIC CHIP 0.01μF	50V	C199	1-124-589-11	ELECT 47μF	20% 16V
C140	1-163-205-00	CERAMIC CHIP 0.001μF	5% 50V	C202	1-124-589-11	ELECT 47μF	20% 16V
C141	1-163-141-00	CERAMIC CHIP 0.001μF	5% 50V	C203	1-124-589-11	ELECT 47μF	20% 16V
C142	1-163-031-11	CERAMIC CHIP 0.01μF	50V	C204	1-124-589-11	ELECT 47μF	20% 16V
C143	1-163-121-00	CERAMIC CHIP 150PF	5% 50V	C205	1-163-101-00	CERAMIC CHIP 22PF	5% 50V
C144	1-163-101-00	CERAMIC CHIP 22PF	5% 50V	C206	1-164-298-11	CERAMIC CHIP 0.15μF	10% 25V
C145	1-163-131-00	CERAMIC CHIP 390PF	5% 50V	C207	1-164-298-11	CERAMIC CHIP 0.15μF	10% 25V
C146	1-126-157-11	ELECT 10μF	20% 16V	C208	1-163-101-00	CERAMIC CHIP 22PF	5% 50V
C147	1-163-021-91	CERAMIC CHIP 0.01μF	10% 50V	C209	1-164-004-11	CERAMIC CHIP 0.1μF	10% 25V
C148	1-126-160-11	ELECT 1μF	20% 50V	C210	1-124-589-11	ELECT 47μF	20% 16V
C149	1-163-022-00	CERAMIC CHIP 0.012μF	10% 50V	C211	1-124-589-11	ELECT 47μF	20% 16V
C150	1-124-589-11	ELECT 47μF	20% 16V	C212	1-124-589-11	ELECT 47μF	20% 16V
C151	1-163-131-00	CERAMIC CHIP 390PF	5% 50V	C213	1-124-589-11	ELECT 47μF	20% 16V
C152	1-163-101-00	CERAMIC CHIP 22PF	5% 50V	C214	1-126-157-11	ELECT 10μF	20% 16V
C153	1-163-259-91	CERAMIC CHIP 220PF	5% 50V	C215	1-126-157-11	ELECT 10μF	20% 16V
C154	1-163-031-11	CERAMIC CHIP 0.01μF	50V	C216	1-126-157-11	ELECT 10μF	20% 16V
C155	1-163-133-00	CERAMIC CHIP 470PF	5% 50V	C217	1-163-031-11	CERAMIC CHIP 0.01μF	50V
C156	1-164-299-11	CERAMIC CHIP 0.22μF	10% 25V	C218	1-164-298-11	CERAMIC CHIP 0.15μF	10% 25V
C157	1-163-229-11	CERAMIC CHIP 12PF	5% 50V	C219	1-163-009-11	CERAMIC CHIP 0.001μF	10% 50V
C158	1-104-664-11	ELECT 47μF	20% 16V	C220	1-163-031-11	CERAMIC CHIP 0.01μF	50V
C159	1-163-229-11	CERAMIC CHIP 12PF	5% 50V	C221	1-124-903-11	ELECT 1μF	20% 50V
C160	1-163-229-11	CERAMIC CHIP 12PF	5% 50V	C222	1-163-093-00	CERAMIC CHIP 10PF	5% 50V
C161	1-124-902-00	ELECT 0.47μF	20% 50V	C223	1-163-031-11	CERAMIC CHIP 0.01μF	50V
C162	1-124-903-11	ELECT 1μF	20% 50V	C225	1-104-664-11	ELECT 47μF	20% 16V
C163	1-163-809-11	CERAMIC CHIP 0.047μF	10% 25V	C226	1-163-031-11	CERAMIC CHIP 0.01μF	50V
C164	1-163-809-11	CERAMIC CHIP 0.047μF	10% 25V	C227	1-163-038-91	CERAMIC CHIP 0.1μF	25V
C165	1-163-009-11	CERAMIC CHIP 0.001μF	10% 50V	C228	1-163-986-00	CERAMIC CHIP 0.027μF	10% 25V
C166	1-163-031-11	CERAMIC CHIP 0.01μF	50V	C229	1-163-031-11	CERAMIC CHIP 0.01μF	50V
C167	1-104-664-11	ELECT 47μF	20% 16V	C230	1-163-038-91	CERAMIC CHIP 0.1μF	25V
C168	1-163-031-11	CERAMIC CHIP 0.01μF	50V	C231	1-163-986-00	CERAMIC CHIP 0.027μF	10% 25V
C169	1-163-243-11	CERAMIC CHIP 47PF	5% 50V	C232	1-163-031-11	CERAMIC CHIP 0.01μF	50V
C170	1-163-129-00	CERAMIC CHIP 330PF	5% 50V	C233	1-163-031-11	CERAMIC CHIP 0.01μF	50V
C171	1-163-243-11	CERAMIC CHIP 47PF	5% 50V	C234	1-163-038-91	CERAMIC CHIP 0.1μF	25V
C172	1-163-129-00	CERAMIC CHIP 330PF	5% 50V	C235	1-163-986-00	CERAMIC CHIP 0.027μF	10% 25V
C173	1-124-589-11	ELECT 47μF	20% 16V	C236	1-163-031-11	CERAMIC CHIP 0.01μF	50V
C174	1-104-664-11	ELECT 47μF	20% 16V	C237	1-163-031-11	CERAMIC CHIP 0.01μF	50V
C175	1-104-987-11	MYLAR 0.001μF	5% 50V	C238	1-164-299-11	CERAMIC CHIP 0.22μF	10% 25V
C176	1-163-031-11	CERAMIC CHIP 0.01μF	50V	C239	1-163-809-11	CERAMIC CHIP 0.047μF	10% 25V
C177	1-163-031-11	CERAMIC CHIP 0.01μF	50V	C240	1-163-809-11	CERAMIC CHIP 0.047μF	10% 25V
C178	1-163-031-11	CERAMIC CHIP 0.01μF	50V	C241	1-163-809-11	CERAMIC CHIP 0.047μF	10% 25V
C179	1-126-160-11	ELECT 1μF	20% 50V	C242	1-163-113-00	CERAMIC CHIP 68PF	5% 50V
C180	1-163-031-11	CERAMIC CHIP 0.01μF	50V	C243	1-163-031-11	CERAMIC CHIP 0.01μF	50V
C181	1-124-589-11	ELECT 47μF	20% 6.3V	C244	1-163-103-00	CERAMIC CHIP 27PF	5% 50V
C182	1-124-259-11	ELECT 4.7μF	20% 16V	C245	1-163-105-00	CERAMIC CHIP 33PF	5% 50V
C183	1-163-021-91	CERAMIC CHIP 0.01μF	10% 50V	C246	1-163-809-11	CERAMIC CHIP 0.047μF	10% 25V
C184	1-163-031-11	CERAMIC CHIP 0.01μF	50V	C247	1-163-809-11	CERAMIC CHIP 0.047μF	10% 25V
C185	1-163-031-11	CERAMIC CHIP 0.01μF	50V				

Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
D123	8-719-404-49	DIODE MA111				<DELAY LINE>	
D125	8-719-404-49	DIODE MA111					
D126	8-719-404-49	DIODE MA111		DL101	1-415-632-11	DELAY LINE, Y	
D127	8-719-404-49	DIODE MA111		DL102	1-415-633-11	DELAY LINE, Y	
D128	8-719-801-78	DIODE 1SS184					
D129	8-719-404-49	DIODE MA111				<IC>	
D130	8-719-800-76	DIODE 1SS226					
D131	8-719-800-76	DIODE 1SS226		IC101	8-759-432-78	IC MM1111XFBE	
D132	8-719-800-76	DIODE 1SS226		IC102	8-759-446-66	IC MM1113XFBE	
D133	8-719-404-49	DIODE MA111		IC103	8-759-446-66	IC MM1113XFBE	
				IC104	8-759-446-66	IC MM1113XFBE	
				IC105	8-759-432-78	IC MM1111XFBE	
D134	8-719-404-49	DIODE MA111					
D135	8-719-404-49	DIODE MA111					
D136	8-719-404-49	DIODE MA111		IC106	8-759-009-51	IC MC14538BF	
D137	8-719-404-49	DIODE MA111		IC107	8-759-473-08	IC BU4584BF-E2	
D138	8-719-404-49	DIODE MA111		IC108	8-759-932-67	IC BU4053BCF	
				IC109	8-759-473-07	IC BU4070BF-E2	
				IC110	8-759-932-67	IC BU4053BCF	
D139	8-719-404-49	DIODE MA111					
D144	8-719-404-49	DIODE MA111					
D145	8-719-404-49	DIODE MA111		IC111	8-759-932-67	IC BU4053BCF	
D146	8-719-404-49	DIODE MA111		IC112	8-759-231-53	IC TA7805S	
D147	8-719-404-49	DIODE MA111		IC113	8-759-631-08	IC M51279FP	
				IC114	8-759-208-09	IC TC4052BFHB	
				IC115	8-759-208-09	IC TC4052BFHB	
D148	8-719-404-49	DIODE MA111					
D149	8-719-404-49	DIODE MA111					
D150	8-719-404-49	DIODE MA111		IC116	8-759-008-67	IC MC14066BF	
D151	8-719-404-49	DIODE MA111		IC117	8-759-358-46	IC MM1114XFBE	
D152	8-719-404-49	DIODE MA111		IC118	8-759-358-46	IC MM1114XFBE	
				IC119	8-759-358-46	IC MM1114XFBE	
				IC120	8-759-008-67	IC MC14066BF	
D153	8-719-977-20	DIODE DTZ8.2B					
D154	8-719-404-49	DIODE MA111					
D155	8-719-404-49	DIODE MA111		IC121	8-759-932-67	IC BU4053BCF	
D156	8-719-404-49	DIODE MA111		IC122	8-759-998-98	IC LM358D	
D157	8-719-901-83	DIODE 1SS83		IC123	8-759-998-98	IC LM358D	
				IC124	8-752-052-62	IC CXA1478S	
				IC125	8-759-008-67	IC MC14066BF	
D158	8-719-901-83	DIODE 1SS83					
D159	8-719-901-83	DIODE 1SS83					
D160	8-719-404-49	DIODE MA111		IC126	8-759-932-67	IC BU4053BCF	
D161	8-719-404-49	DIODE MA111		IC127	8-759-998-98	IC LM358D	
D162	8-719-404-49	DIODE MA111		IC128	8-759-998-98	IC LM358D	
				IC129	8-759-998-98	IC LM358D	
				IC1400	8-759-242-64	IC TC4W53F	
D170	8-719-404-49	DIODE MA111					
D185	8-719-104-34	DIODE 1S2836					
D186	8-719-801-78	DIODE 1SS184		IC1401	8-759-209-97	IC TC4S81F	
D187	8-719-800-76	DIODE 1SS226					
D188	8-719-800-76	DIODE 1SS226				<CHIP CONDUCTOR>	
D191	8-719-104-34	DIODE 1S2836					
D285	8-719-404-49	DIODE MA111		JR105	1-216-295-91	SHORT 0	
D289	8-719-404-49	DIODE MA111		JR110	1-216-295-91	SHORT 0	
D341	8-719-404-49	DIODE MA111		JR133	1-216-295-91	SHORT 0	
D342	8-719-104-34	DIODE 1S2836		JR138	1-216-295-91	SHORT 0	
				JR178	1-216-295-91	SHORT 0	
D343	8-719-800-76	DIODE 1SS226					
D344	8-719-105-99	DIODE RD6.2M-B1					
D345	8-719-901-83	DIODE 1SS83				<COIL>	
D346	8-719-901-83	DIODE 1SS83					
D347	8-719-901-83	DIODE 1SS83		L101	1-410-470-11	INDUCTOR 10μH	
				L102	1-410-090-41	INDUCTOR 18mH	
D348	8-719-800-76	DIODE 1SS226		L103	1-412-002-31	INDUCTOR CHIP 4.7μH	
D349	8-719-800-76	DIODE 1SS226		L104	1-412-002-31	INDUCTOR CHIP 4.7μH	
D350	8-719-800-76	DIODE 1SS226		L105	1-412-002-31	INDUCTOR CHIP 4.7μH	
D390	8-719-800-76	DIODE 1SS226					
D393	8-719-404-49	DIODE MA111		L106	1-410-470-11	INDUCTOR 10μH	
				L107	1-410-470-11	INDUCTOR 10μH	
D1400	8-719-045-70	DIODE 1SV230TPH3		L112	1-408-613-31	INDUCTOR 68μH	
D1401	8-719-404-49	DIODE MA111		L113	1-410-947-31	INDUCTOR CHIP 33μH	
				L114	1-410-947-31	INDUCTOR CHIP 33μH	



Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
L115	1-410-947-31	INDUCTOR CHIP 33μH		Q155	8-729-200-17	TRANSISTOR 2SA1091-O	
L116	1-412-011-31	INDUCTOR CHIP 27μH		Q157	8-729-326-11	TRANSISTOR 2SC2611	
L117	1-412-011-31	INDUCTOR CHIP 27μH		Q158	8-729-326-11	TRANSISTOR 2SC2611	
L118	1-412-011-31	INDUCTOR CHIP 27μH		Q159	8-729-326-11	TRANSISTOR 2SC2611	
L252	1-410-478-11	INDUCTOR 47μH		Q160	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
L300	1-410-482-31	INDUCTOR 100μH		Q161	8-729-216-22	TRANSISTOR 2SA1162-G	
L1400	1-410-196-11	INDUCTOR CHIP 2.2μH		Q164	1-801-806-11	TRANSISTOR DTC144EK-T147	
		<TRANSISTOR>		Q165	8-729-216-22	TRANSISTOR 2SA1162-G	
Q101	8-729-120-28	TRANSISTOR 2SC1623-L5L6		Q166	8-729-216-22	TRANSISTOR 2SA1162-G	
Q102	8-729-120-28	TRANSISTOR 2SC1623-L5L6		Q167	8-729-216-22	TRANSISTOR 2SA1162-G	
Q103	8-729-120-28	TRANSISTOR 2SC1623-L5L6		Q168	8-729-216-22	TRANSISTOR 2SA1162-G	
Q104	8-729-120-28	TRANSISTOR 2SC1623-L5L6		Q170	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q105	8-729-120-28	TRANSISTOR 2SC1623-L5L6		Q171	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q106	8-729-120-28	TRANSISTOR 2SC1623-L5L6		Q172	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q107	8-729-120-28	TRANSISTOR 2SC1623-L5L6		Q173	8-729-216-22	TRANSISTOR 2SA1162-G	
Q108	8-729-216-22	TRANSISTOR 2SA1162-G		Q174	8-729-216-22	TRANSISTOR 2SA1162-G	
Q109	1-801-806-11	TRANSISTOR DTC144EK-T147		Q175	8-729-216-22	TRANSISTOR 2SA1162-G	
Q112	8-729-120-28	TRANSISTOR 2SC1623-L5L6		Q176	8-729-216-22	TRANSISTOR 2SA1162-G	
Q113	8-729-120-28	TRANSISTOR 2SC1623-L5L6		Q177	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q114	8-729-216-22	TRANSISTOR 2SA1162-G		Q178	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q115	8-729-120-28	TRANSISTOR 2SC1623-L5L6		Q179	1-801-806-11	TRANSISTOR DTC144EK-T147	
Q116	8-729-120-28	TRANSISTOR 2SC1623-L5L6		Q189	8-729-907-26	TRANSISTOR IMX1	
Q117	8-729-216-22	TRANSISTOR 2SA1162-G		Q190	8-729-216-22	TRANSISTOR 2SA1162-G	
Q118	8-729-120-28	TRANSISTOR 2SC1623-L5L6		Q191	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q119	8-729-216-22	TRANSISTOR 2SA1162-G		Q192	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q120	8-729-216-22	TRANSISTOR 2SA1162-G		Q193	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q121	8-729-120-28	TRANSISTOR 2SC1623-L5L6		Q194	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q122	8-729-216-22	TRANSISTOR 2SA1162-G		Q195	8-729-216-22	TRANSISTOR 2SA1162-G	
Q123	8-729-120-28	TRANSISTOR 2SC1623-L5L6		Q196	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q124	8-729-216-22	TRANSISTOR 2SA1162-G		Q197	8-729-216-22	TRANSISTOR 2SA1162-G	
Q125	8-729-120-28	TRANSISTOR 2SC1623-L5L6		Q198	8-729-216-22	TRANSISTOR 2SA1162-G	
Q126	1-801-806-11	TRANSISTOR DTC144EK-T147		Q199	8-729-216-22	TRANSISTOR 2SA1162-G	
Q127	8-729-216-22	TRANSISTOR 2SA1162-G		Q200	8-729-901-06	TRANSISTOR DTA144EK	
Q128	8-729-216-22	TRANSISTOR 2SA1162-G		Q201	8-729-216-22	TRANSISTOR 2SA1162-G	
Q129	1-801-806-11	TRANSISTOR DTC144EK-T147		Q202	8-729-216-22	TRANSISTOR 2SA1162-G	
Q130	8-729-216-22	TRANSISTOR 2SA1162-G		Q203	8-729-216-22	TRANSISTOR 2SA1162-G	
Q132	8-729-216-22	TRANSISTOR 2SA1162-G		Q204	8-729-216-22	TRANSISTOR 2SA1162-G	
Q134	1-801-806-11	TRANSISTOR DTC144EK-T147		Q205	8-729-216-22	TRANSISTOR 2SA1162-G	
Q136	8-729-907-26	TRANSISTOR IMX1		Q206	8-729-216-22	TRANSISTOR 2SA1162-G	
Q137	8-729-907-26	TRANSISTOR IMX1		Q208	8-729-216-22	TRANSISTOR 2SA1162-G	
Q138	8-729-907-26	TRANSISTOR IMX1		Q209	8-729-255-12	TRANSISTOR 2SC2551-O	
Q139	8-729-216-22	TRANSISTOR 2SA1162-G		Q210	8-729-255-12	TRANSISTOR 2SC2551-O	
Q140	8-729-120-28	TRANSISTOR 2SC1623-L5L6		Q211	8-729-255-12	TRANSISTOR 2SC2551-O	
Q141	8-729-120-28	TRANSISTOR 2SC1623-L5L6		Q212	8-729-141-53	TRANSISTOR 2SK94-X2X3X4	
Q142	8-729-120-28	TRANSISTOR 2SC1623-L5L6		Q299	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q143	8-729-120-28	TRANSISTOR 2SC1623-L5L6		Q1400	8-729-141-53	TRANSISTOR 2SK94-X2X3X4	
Q144	8-729-120-28	TRANSISTOR 2SC1623-L5L6		Q1401	8-729-141-53	TRANSISTOR 2SK94-X2X3X4	
Q145	8-729-120-28	TRANSISTOR 2SC1623-L5L6				<RESISTOR>	
Q146	8-729-255-12	TRANSISTOR 2SC2551-O		R101	1-216-089-91	RES,CHIP 47K 5% 1/10W	
Q147	8-729-255-12	TRANSISTOR 2SC2551-O		R102	1-216-025-91	RES,CHIP 100 5% 1/10W	
Q148	8-729-216-22	TRANSISTOR 2SA1162-G		R103	1-216-091-00	RES,CHIP 56K 5% 1/10W	
Q149	8-729-200-17	TRANSISTOR 2SA1091-O		R104	1-216-061-00	RES,CHIP 3.3K 5% 1/10W	
Q150	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R105	1-216-025-91	RES,CHIP 100 5% 1/10W	
Q151	8-729-216-22	TRANSISTOR 2SA1162-G		R106	1-216-065-91	RES,CHIP 4.7K 5% 1/10W	
Q152	8-729-200-17	TRANSISTOR 2SA1091-O		R107	1-216-025-91	RES,CHIP 100 5% 1/10W	
Q153	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R108	1-216-113-00	RES,CHIP 470K 5% 1/10W	
Q154	8-729-216-22	TRANSISTOR 2SA1162-G					

Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
R109	1-216-065-91	RES,CHIP	4.7K 5% 1/10W	R178	1-216-089-91	RES,CHIP	47K 5% 1/10W
R110	1-216-049-91	RES,CHIP	1K 5% 1/10W	R179	1-216-081-00	RES,CHIP	22K 5% 1/10W
R111	1-216-063-91	RES,CHIP	3.9K 5% 1/10W	R180	1-216-679-11	METAL CHIP	15K 0.50% 1/10W
R112	1-216-049-91	RES,CHIP	1K 5% 1/10W	R181	1-216-071-00	RES,CHIP	8.2K 5% 1/10W
R113	1-249-401-11	CARBON	47 5% 1/4W F	R182	1-216-682-11	METAL CHIP	20K 0.50% 1/10W
R114	1-216-045-00	RES,CHIP	680 5% 1/10W	R183	1-216-691-11	METAL CHIP	47K 0.50% 1/10W
R115	1-216-061-00	RES,CHIP	3.3K 5% 1/10W	R184	1-218-760-11	METAL CHIP	220K 0.50% 1/10W
R117	1-216-073-00	RES,CHIP	10K 5% 1/10W	R185	1-216-073-00	RES,CHIP	10K 5% 1/10W
R118	1-216-025-91	RES,CHIP	100 5% 1/10W	R186	1-216-113-00	RES,CHIP	470K 5% 1/10W
R119	1-216-647-11	METAL CHIP	680 0.50% 1/10W	R187	1-216-073-00	RES,CHIP	10K 5% 1/10W
R120	1-216-647-11	METAL CHIP	680 0.50% 1/10W	R188	1-216-113-00	RES,CHIP	470K 5% 1/10W
R121	1-216-025-91	RES,CHIP	100 5% 1/10W	R189	1-216-103-00	RES,CHIP	180K 5% 1/10W
R122	1-216-083-00	RES,CHIP	27K 5% 1/10W	R190	1-216-107-00	RES,CHIP	270K 5% 1/10W
R123	1-216-073-00	RES,CHIP	10K 5% 1/10W	R191	1-216-097-91	RES,CHIP	100K 5% 1/10W
R124	1-216-073-00	RES,CHIP	10K 5% 1/10W	R192	1-216-103-00	RES,CHIP	180K 5% 1/10W
R125	1-216-083-00	RES,CHIP	27K 5% 1/10W	R193	1-216-105-91	RES,CHIP	220K 5% 1/10W
R126	1-216-093-00	RES,CHIP	68K 5% 1/10W	R194	1-216-089-91	RES,CHIP	47K 5% 1/10W
R127	1-216-037-00	RES,CHIP	330 5% 1/10W	R195	1-216-113-00	RES,CHIP	470K 5% 1/10W
R128	1-216-083-00	RES,CHIP	27K 5% 1/10W	R196	1-216-073-00	RES,CHIP	10K 5% 1/10W
R129	1-216-067-00	RES,CHIP	5.6K 5% 1/10W	R197	1-216-671-11	METAL CHIP	6.8K 0.50% 1/10W
R130	1-216-097-91	RES,CHIP	100K 5% 1/10W	R198	1-216-049-91	RES,CHIP	1K 5% 1/10W
R131	1-216-089-91	RES,CHIP	47K 5% 1/10W	R199	1-216-065-91	RES,CHIP	4.7K 5% 1/10W
R132	1-216-057-00	RES,CHIP	2.2K 5% 1/10W	R200	1-216-065-91	RES,CHIP	4.7K 5% 1/10W
R133	1-216-079-00	RES,CHIP	18K 5% 1/10W	R201	1-216-043-91	RES,CHIP	560 5% 1/10W
R134	1-216-645-11	METAL CHIP	560 0.50% 1/10W	R202	1-216-033-00	RES,CHIP	220 5% 1/10W
R135	1-216-645-11	METAL CHIP	560 0.50% 1/10W	R203	1-216-045-00	RES,CHIP	680 5% 1/10W
R136	1-216-091-00	RES,CHIP	56K 5% 1/10W	R204	1-216-073-00	RES,CHIP	10K 5% 1/10W
R137	1-216-045-00	RES,CHIP	680 5% 1/10W	R205	1-216-073-00	RES,CHIP	10K 5% 1/10W
R138	1-216-657-11	METAL CHIP	1.8K 0.50% 1/10W	R206	1-216-043-91	RES,CHIP	560 5% 1/10W
R139	1-216-079-00	RES,CHIP	18K 5% 1/10W	R207	1-216-045-00	RES,CHIP	680 5% 1/10W
R140	1-216-653-11	METAL CHIP	1.2K 0.50% 1/10W	R208	1-216-671-11	METAL CHIP	6.8K 0.50% 1/10W
R141	1-216-063-91	RES,CHIP	3.9K 5% 1/10W	R209	1-216-043-91	RES,CHIP	560 5% 1/10W
R142	1-216-073-00	RES,CHIP	10K 5% 1/10W	R210	1-216-033-00	RES,CHIP	220 5% 1/10W
R143	1-216-085-00	RES,CHIP	33K 5% 1/10W	R211	1-216-099-00	RES,CHIP	120K 5% 1/10W
R145	1-216-065-91	RES,CHIP	4.7K 5% 1/10W	R212	1-216-065-91	RES,CHIP	4.7K 5% 1/10W
R146	1-216-037-00	RES,CHIP	330 5% 1/10W	R213	1-216-043-91	RES,CHIP	560 5% 1/10W
R147	1-216-089-91	RES,CHIP	47K 5% 1/10W	R214	1-216-043-91	RES,CHIP	560 5% 1/10W
R148	1-216-671-11	METAL CHIP	6.8K 0.50% 1/10W	R215	1-216-127-11	RES,CHIP	1.8M 5% 1/10W
R155	1-216-655-11	METAL CHIP	1.5K 0.50% 1/10W	R216	1-216-043-91	RES,CHIP	560 5% 1/10W
R157	1-216-679-11	METAL CHIP	15K 0.50% 1/10W	R217	1-216-033-00	RES,CHIP	220 5% 1/10W
R158	1-216-677-11	METAL CHIP	12K 0.50% 1/10W	R218	1-216-295-91	SHORT 0	
R160	1-216-065-91	RES,CHIP	4.7K 5% 1/10W	R219	1-216-043-91	RES,CHIP	560 5% 1/10W
R161	1-216-089-91	RES,CHIP	47K 5% 1/10W	R220	1-216-043-91	RES,CHIP	560 5% 1/10W
R163	1-216-073-00	RES,CHIP	10K 5% 1/10W	R221	1-216-035-00	RES,CHIP	270 5% 1/10W
R164	1-216-677-11	METAL CHIP	12K 0.50% 1/10W	R222	1-216-033-00	RES,CHIP	220 5% 1/10W
R165	1-216-107-00	RES,CHIP	270K 5% 1/10W	R223	1-216-073-00	RES,CHIP	10K 5% 1/10W
R166	1-216-681-11	METAL CHIP	18K 0.50% 1/10W	R224	1-216-073-00	RES,CHIP	10K 5% 1/10W
R167	1-216-635-11	METAL CHIP	220 0.50% 1/10W	R225	1-216-095-00	RES,CHIP	82K 5% 1/10W
R168	1-216-103-00	RES,CHIP	180K 5% 1/10W	R226	1-216-073-00	RES,CHIP	10K 5% 1/10W
R169	1-216-033-00	RES,CHIP	220 5% 1/10W	R227	1-216-035-00	RES,CHIP	270 5% 1/10W
R170	1-216-089-91	RES,CHIP	47K 5% 1/10W	R228	1-216-065-91	RES,CHIP	4.7K 5% 1/10W
R171	1-216-053-00	RES,CHIP	1.5K 5% 1/10W	R229	1-216-113-00	RES,CHIP	470K 5% 1/10W
R172	1-216-043-91	RES,CHIP	560 5% 1/10W	R230	1-216-081-00	RES,CHIP	22K 5% 1/10W
R173	1-216-093-00	RES,CHIP	68K 5% 1/10W	R231	1-216-113-00	RES,CHIP	470K 5% 1/10W
R174	1-216-069-00	RES,CHIP	6.8K 5% 1/10W	R232	1-216-105-91	RES,CHIP	220K 5% 1/10W
R175	1-216-057-00	RES,CHIP	2.2K 5% 1/10W	R233	1-216-073-00	RES,CHIP	10K 5% 1/10W
R176	1-216-065-91	RES,CHIP	4.7K 5% 1/10W	R234	1-216-041-00	RES,CHIP	470 5% 1/10W
R177	1-216-073-00	RES,CHIP	10K 5% 1/10W	R235	1-216-041-00	RES,CHIP	470 5% 1/10W
				R236	1-216-077-00	RES,CHIP	15K 5% 1/10W



Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
R237	1-216-025-91	RES,CHIP	100 5% 1/10W	R311	1-216-089-91	RES,CHIP	47K 5% 1/10W
R238	1-216-065-91	RES,CHIP	4.7K 5% 1/10W	R312	1-216-089-91	RES,CHIP	47K 5% 1/10W
R239	1-216-065-91	RES,CHIP	4.7K 5% 1/10W	R313	1-216-033-00	RES,CHIP	220 5% 1/10W
R240	1-216-033-00	RES,CHIP	220 5% 1/10W	R314	1-216-089-91	RES,CHIP	47K 5% 1/10W
R241	1-216-073-00	RES,CHIP	10K 5% 1/10W	R315	1-216-113-00	RES,CHIP	470K 5% 1/10W
R242	1-216-051-00	RES,CHIP	1.2K 5% 1/10W	R316	1-216-105-91	RES,CHIP	220K 5% 1/10W
R243	1-216-113-00	RES,CHIP	470K 5% 1/10W	R317	1-216-109-00	RES,CHIP	330K 5% 1/10W
R244	1-216-065-91	RES,CHIP	4.7K 5% 1/10W	R318	1-216-105-91	RES,CHIP	220K 5% 1/10W
R245	1-216-679-11	METAL CHIP	15K 0.50% 1/10W	R319	1-216-099-00	RES,CHIP	120K 5% 1/10W
R246	1-216-103-00	RES,CHIP	180K 5% 1/10W	R320	1-216-099-00	RES,CHIP	120K 5% 1/10W
R247	1-216-093-00	RES,CHIP	68K 5% 1/10W	R321	1-216-043-91	RES,CHIP	560 5% 1/10W
R248	1-216-095-00	RES,CHIP	82K 5% 1/10W	R322	1-216-109-00	RES,CHIP	330K 5% 1/10W
R249	1-216-109-00	RES,CHIP	330K 5% 1/10W	R323	1-216-109-00	RES,CHIP	330K 5% 1/10W
R250	1-216-101-00	RES,CHIP	150K 5% 1/10W	R324	1-216-109-00	RES,CHIP	330K 5% 1/10W
R251	1-216-105-91	RES,CHIP	220K 5% 1/10W	R325	1-216-097-91	RES,CHIP	100K 5% 1/10W
R252	1-216-101-00	RES,CHIP	150K 5% 1/10W	R326	1-216-113-00	RES,CHIP	470K 5% 1/10W
R253	1-216-101-00	RES,CHIP	150K 5% 1/10W	R328	1-216-073-00	RES,CHIP	10K 5% 1/10W
R256	1-216-107-00	RES,CHIP	270K 5% 1/10W	R329	1-216-107-00	RES,CHIP	270K 5% 1/10W
R259	1-216-073-00	RES,CHIP	10K 5% 1/10W	R330	1-216-105-91	RES,CHIP	220K 5% 1/10W
R262	1-216-097-91	RES,CHIP	100K 5% 1/10W	R331	1-216-025-91	RES,CHIP	100 5% 1/10W
R264	1-216-065-91	RES,CHIP	4.7K 5% 1/10W	R332	1-216-097-91	RES,CHIP	100K 5% 1/10W
R266	1-216-073-00	RES,CHIP	10K 5% 1/10W	R333	1-216-097-91	RES,CHIP	100K 5% 1/10W
R268	1-216-081-00	RES,CHIP	22K 5% 1/10W	R334	1-216-025-91	RES,CHIP	100 5% 1/10W
R269	1-216-103-00	RES,CHIP	180K 5% 1/10W	R335	1-216-099-00	RES,CHIP	120K 5% 1/10W
R270	1-216-081-00	RES,CHIP	22K 5% 1/10W	R336	1-216-095-00	RES,CHIP	82K 5% 1/10W
R271	1-216-025-91	RES,CHIP	100 5% 1/10W	R337	1-216-105-91	RES,CHIP	220K 5% 1/10W
R272	1-216-103-00	RES,CHIP	180K 5% 1/10W	R338	1-216-025-91	RES,CHIP	100 5% 1/10W
R273	1-216-113-00	RES,CHIP	470K 5% 1/10W	R339	1-216-099-00	RES,CHIP	120K 5% 1/10W
R275	1-216-081-00	RES,CHIP	22K 5% 1/10W	R340	1-216-095-00	RES,CHIP	82K 5% 1/10W
R276	1-216-037-00	RES,CHIP	330 5% 1/10W	R341	1-216-105-91	RES,CHIP	220K 5% 1/10W
R277	1-216-049-91	RES,CHIP	1K 5% 1/10W	R342	1-216-047-91	RES,CHIP	820 5% 1/10W
R278	1-216-059-00	RES,CHIP	2.7K 5% 1/10W	R343	1-216-053-00	RES,CHIP	1.5K 5% 1/10W
R280	1-216-061-00	RES,CHIP	3.3K 5% 1/10W	R344	1-216-664-11	METAL CHIP	3.6K 0.50% 1/10W
R281	1-216-061-00	RES,CHIP	3.3K 5% 1/10W	R345	1-216-661-11	METAL CHIP	2.7K 0.50% 1/10W
R282	1-216-037-00	RES,CHIP	330 5% 1/10W	R346	1-216-105-91	RES,CHIP	220K 5% 1/10W
R283	1-216-049-91	RES,CHIP	1K 5% 1/10W	R348	1-216-061-00	RES,CHIP	3.3K 5% 1/10W
R284	1-216-059-00	RES,CHIP	2.7K 5% 1/10W	R349	1-216-650-11	METAL CHIP	910 0.50% 1/10W
R286	1-216-061-00	RES,CHIP	3.3K 5% 1/10W	R350	1-216-653-11	METAL CHIP	1.2K 0.50% 1/10W
R287	1-216-061-00	RES,CHIP	3.3K 5% 1/10W	R351	1-216-650-11	METAL CHIP	910 0.50% 1/10W
R288	1-216-037-00	RES,CHIP	330 5% 1/10W	R352	1-216-653-11	METAL CHIP	1.2K 0.50% 1/10W
R289	1-216-049-91	RES,CHIP	1K 5% 1/10W	R353	1-216-650-11	METAL CHIP	910 0.50% 1/10W
R290	1-216-059-00	RES,CHIP	2.7K 5% 1/10W	R354	1-216-653-11	METAL CHIP	1.2K 0.50% 1/10W
R292	1-216-061-00	RES,CHIP	3.3K 5% 1/10W	R355	1-216-113-00	RES,CHIP	470K 5% 1/10W
R293	1-216-061-00	RES,CHIP	3.3K 5% 1/10W	R356	1-216-113-00	RES,CHIP	470K 5% 1/10W
R295	1-216-057-00	RES,CHIP	2.2K 5% 1/10W	R357	1-216-095-00	RES,CHIP	82K 5% 1/10W
R296	1-216-659-11	METAL CHIP	2.2K 0.50% 1/10W	R358	1-216-113-00	RES,CHIP	470K 5% 1/10W
R297	1-216-659-11	METAL CHIP	2.2K 0.50% 1/10W	R359	1-216-081-00	RES,CHIP	22K 5% 1/10W
R298	1-216-065-91	RES,CHIP	4.7K 5% 1/10W	R360	1-216-089-91	RES,CHIP	47K 5% 1/10W
R300	1-216-065-91	RES,CHIP	4.7K 5% 1/10W	R363	1-216-069-00	RES,CHIP	6.8K 5% 1/10W
R301	1-216-059-00	RES,CHIP	2.7K 5% 1/10W	R364	1-216-073-00	RES,CHIP	10K 5% 1/10W
R302	1-216-113-00	RES,CHIP	470K 5% 1/10W	R365	1-216-073-00	RES,CHIP	10K 5% 1/10W
R303	1-216-065-91	RES,CHIP	4.7K 5% 1/10W	R366	1-216-244-00	RES,CHIP	82K 5% 1/8W
R304	1-216-049-91	RES,CHIP	1K 5% 1/10W	R367	1-216-244-00	RES,CHIP	82K 5% 1/8W
R305	1-216-049-91	RES,CHIP	1K 5% 1/10W	R368	1-216-055-00	RES,CHIP	1.8K 5% 1/10W
R306	1-216-089-91	RES,CHIP	47K 5% 1/10W	R369	1-216-248-00	RES,CHIP	120K 5% 1/8W
R307	1-216-033-00	RES,CHIP	220 5% 1/10W	R370	1-216-115-00	RES,CHIP	560K 5% 1/10W
R308	1-216-089-91	RES,CHIP	47K 5% 1/10W	R371	1-216-067-00	RES,CHIP	5.6K 5% 1/10W
R309	1-216-089-91	RES,CHIP	47K 5% 1/10W	R372	1-216-115-00	RES,CHIP	560K 5% 1/10W
R310	1-216-033-00	RES,CHIP	220 5% 1/10W				

Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
R374	1-216-115-00	RES,CHIP	560K 5% 1/10W	R1038	1-216-081-00	RES,CHIP	22K 5% 1/10W
R375	1-216-683-11	METAL CHIP	22K 0.50% 1/10W	R1040	1-216-025-91	RES,CHIP	100 5% 1/10W
R376	1-216-663-11	METAL CHIP	3.3K 0.50% 1/10W	R1042	1-216-047-91	RES,CHIP	820 5% 1/10W
R378	1-216-025-91	RES,CHIP	100 5% 1/10W	R1043	1-216-057-00	RES,CHIP	2.2K 5% 1/10W
R379	1-216-641-11	METAL CHIP	390 0.50% 1/10W	R1044	1-216-061-00	RES,CHIP	3.3K 5% 1/10W
R380	1-216-668-11	METAL CHIP	5.1K 0.50% 1/10W	R1045	1-216-125-00	RES,CHIP	1.5M 5% 1/10W
R381	1-216-089-91	RES,CHIP	47K 5% 1/10W	R1046	1-216-689-11	METAL CHIP	39K 0.50% 1/10W
R382	1-216-025-91	RES,CHIP	100 5% 1/10W	R1047	1-216-065-91	RES,CHIP	4.7K 5% 1/10W
R383	1-216-641-11	METAL CHIP	390 0.50% 1/10W	R1048	1-216-049-91	RES,CHIP	1K 5% 1/10W
R384	1-216-668-11	METAL CHIP	5.1K 0.50% 1/10W	R1049	1-216-085-00	RES,CHIP	33K 5% 1/10W
R385	1-216-117-00	RES,CHIP	680K 5% 1/10W	R1050	1-216-059-00	RES,CHIP	2.7K 5% 1/10W
R386	1-216-025-91	RES,CHIP	100 5% 1/10W	R1051	1-216-105-91	RES,CHIP	220K 5% 1/10W
R387	1-216-641-11	METAL CHIP	390 0.50% 1/10W	R1053	1-216-091-00	RES,CHIP	56K 5% 1/10W
R388	1-216-668-11	METAL CHIP	5.1K 0.50% 1/10W	R1054	1-216-093-00	RES,CHIP	68K 5% 1/10W
R389	1-216-089-91	RES,CHIP	47K 5% 1/10W	R1056	1-216-037-00	RES,CHIP	330 5% 1/10W
R390	1-216-105-91	RES,CHIP	220K 5% 1/10W	R1057	1-216-065-91	RES,CHIP	4.7K 5% 1/10W
R391	1-216-081-00	RES,CHIP	22K 5% 1/10W	R1058	1-216-109-00	RES,CHIP	330K 5% 1/10W
R392	1-216-113-00	RES,CHIP	470K 5% 1/10W	R1059	1-216-109-00	RES,CHIP	330K 5% 1/10W
R393	1-216-085-00	RES,CHIP	33K 5% 1/10W	R1060	1-216-109-00	RES,CHIP	330K 5% 1/10W
R394	1-216-113-00	RES,CHIP	470K 5% 1/10W	R1061	1-216-109-00	RES,CHIP	330K 5% 1/10W
R397	1-249-437-11	CARBON	47K 5% 1/4W F	R1062	1-216-103-00	RES,CHIP	180K 5% 1/10W
R398	1-249-434-11	CARBON	27K 5% 1/4W F	R1063	1-216-103-00	RES,CHIP	180K 5% 1/10W
R399	1-216-073-00	RES,CHIP	10K 5% 1/10W	R1064	1-216-103-00	RES,CHIP	180K 5% 1/10W
R1001	1-216-073-00	RES,CHIP	10K 5% 1/10W	R1065	1-216-103-00	RES,CHIP	180K 5% 1/10W
R1002	1-216-047-91	RES,CHIP	820 5% 1/10W	R1066	1-216-073-00	RES,CHIP	10K 5% 1/10W
R1003	1-216-055-00	RES,CHIP	1.8K 5% 1/10W	R1067	1-216-073-00	RES,CHIP	10K 5% 1/10W
R1004	1-216-061-00	RES,CHIP	3.3K 5% 1/10W	R1068	1-216-049-91	RES,CHIP	1K 5% 1/10W
R1005	1-216-047-91	RES,CHIP	820 5% 1/10W	R1069	1-216-133-00	RES,CHIP	3.3M 5% 1/10W
R1006	1-216-055-00	RES,CHIP	1.8K 5% 1/10W	R1070	1-216-085-00	RES,CHIP	33K 5% 1/10W
R1007	1-216-061-00	RES,CHIP	3.3K 5% 1/10W	R1071	1-216-113-00	RES,CHIP	470K 5% 1/10W
R1008	1-216-047-91	RES,CHIP	820 5% 1/10W	R1072	1-216-099-00	RES,CHIP	120K 5% 1/10W
R1009	1-216-053-00	RES,CHIP	1.5K 5% 1/10W	R1073	1-216-131-11	RES,CHIP	2.7M 5% 1/10W
R1010	1-216-061-00	RES,CHIP	3.3K 5% 1/10W	R1075	1-216-065-91	RES,CHIP	4.7K 5% 1/10W
R1011	1-216-033-00	RES,CHIP	220 5% 1/10W	R1076	1-216-101-00	RES,CHIP	150K 5% 1/10W
R1012	1-216-051-00	RES,CHIP	1.2K 5% 1/10W	R1077	1-216-103-00	RES,CHIP	180K 5% 1/10W
R1013	1-216-051-00	RES,CHIP	1.2K 5% 1/10W	R1079	1-216-131-11	RES,CHIP	2.7M 5% 1/10W
R1014	1-216-246-00	RES,CHIP	100K 5% 1/8W	R1080	1-216-097-91	RES,CHIP	100K 5% 1/10W
R1015	1-216-033-00	RES,CHIP	220 5% 1/10W	R1081	1-216-097-91	RES,CHIP	100K 5% 1/10W
R1016	1-216-097-91	RES,CHIP	100K 5% 1/10W	R1082	1-216-105-91	RES,CHIP	220K 5% 1/10W
R1017	1-216-045-00	RES,CHIP	680 5% 1/10W	R1083	1-216-065-91	RES,CHIP	4.7K 5% 1/10W
R1018	1-216-043-91	RES,CHIP	560 5% 1/10W	R1084	1-216-063-91	RES,CHIP	3.9K 5% 1/10W
R1019	1-216-033-00	RES,CHIP	220 5% 1/10W	R1086	1-216-073-00	RES,CHIP	10K 5% 1/10W
R1020	1-216-097-91	RES,CHIP	100K 5% 1/10W	R1087	1-216-121-91	RES,CHIP	1M 5% 1/10W
R1021	1-216-045-00	RES,CHIP	680 5% 1/10W	R1088	1-216-047-91	RES,CHIP	820 5% 1/10W
R1022	1-216-025-91	RES,CHIP	100 5% 1/10W	R1090	1-216-049-91	RES,CHIP	1K 5% 1/10W
R1023	1-216-073-00	RES,CHIP	10K 5% 1/10W	R1091	1-216-049-91	RES,CHIP	1K 5% 1/10W
R1024	1-216-025-91	RES,CHIP	100 5% 1/10W	R1092	1-216-049-91	RES,CHIP	1K 5% 1/10W
R1025	1-216-033-00	RES,CHIP	220 5% 1/10W	R1093	1-216-121-91	RES,CHIP	1M 5% 1/10W
R1026	1-216-061-00	RES,CHIP	3.3K 5% 1/10W	R1094	1-216-075-00	RES,CHIP	12K 5% 1/10W
R1027	1-216-101-00	RES,CHIP	150K 5% 1/10W	R1095	1-216-075-00	RES,CHIP	12K 5% 1/10W
R1028	1-216-033-00	RES,CHIP	220 5% 1/10W	R1096	1-216-075-00	RES,CHIP	12K 5% 1/10W
R1029	1-216-061-00	RES,CHIP	3.3K 5% 1/10W	R1200	1-216-699-11	METAL CHIP	100K 0.50% 1/10W
R1030	1-216-089-91	RES,CHIP	47K 5% 1/10W	R1201	1-218-754-11	METAL CHIP	120K 0.50% 1/10W
R1031	1-216-033-00	RES,CHIP	220 5% 1/10W	R1207	1-216-061-00	RES,CHIP	3.3K 5% 1/10W
R1032	1-216-061-00	RES,CHIP	3.3K 5% 1/10W	R1208	1-216-065-91	RES,CHIP	4.7K 5% 1/10W
R1033	1-216-081-00	RES,CHIP	22K 5% 1/10W	R1220	1-216-055-00	RES,CHIP	1.8K 5% 1/10W
R1035	1-216-073-00	RES,CHIP	10K 5% 1/10W	R1221	1-216-055-00	RES,CHIP	1.8K 5% 1/10W
R1036	1-216-089-91	RES,CHIP	47K 5% 1/10W	R1222	1-216-055-00	RES,CHIP	1.8K 5% 1/10W
				R1223	1-216-689-11	RES,CHIP	39K 5% 1/10W



Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
R1225	1-215-876-00	METAL OXIDE	15K 5% 1W F	R1337	1-216-113-00	RES,CHIP	470K 5% 1/10W
R1226	1-215-876-00	METAL OXIDE	15K 5% 1W F	R1338	1-216-049-91	RES,CHIP	1K 5% 1/10W
R1227	1-215-876-00	METAL OXIDE	15K 5% 1W F	R1339	1-216-097-91	RES,CHIP	100K 5% 1/10W
R1228	1-249-421-11	CARBON	2.2K 5% 1/4W F	R1340	1-216-097-91	RES,CHIP	100K 5% 1/10W
R1229	1-249-421-11	CARBON	2.2K 5% 1/4W F	R1341	1-216-111-00	RES,CHIP	390K 5% 1/10W
R1230	1-249-421-11	CARBON	2.2K 5% 1/4W F	R1342	1-216-694-11	METAL CHIP	62K 0.50% 1/10W
R1231	1-216-029-00	RES,CHIP	150 5% 1/10W	R1343	1-216-121-91	RES,CHIP	1M 5% 1/10W
R1232	1-216-029-00	RES,CHIP	150 5% 1/10W	R1344	1-216-073-00	RES,CHIP	10K 5% 1/10W
R1233	1-216-029-00	RES,CHIP	150 5% 1/10W	R1345	1-216-055-00	RES,CHIP	1.8K 5% 1/10W
R1234	1-216-029-00	RES,CHIP	150 5% 1/10W	R1346	1-216-047-91	RES,CHIP	820 5% 1/10W
R1235	1-216-029-00	RES,CHIP	150 5% 1/10W	R1347	1-216-073-00	RES,CHIP	10K 5% 1/10W
R1236	1-216-029-00	RES,CHIP	150 5% 1/10W	R1348	1-216-073-00	RES,CHIP	10K 5% 1/10W
R1237	1-249-419-11	CARBON	1.5K 5% 1/4W F	R1349	1-216-073-00	RES,CHIP	10K 5% 1/10W
R1238	1-249-419-11	CARBON	1.5K 5% 1/4W F	R1350	1-216-073-00	RES,CHIP	10K 5% 1/10W
R1239	1-249-419-11	CARBON	1.5K 5% 1/4W F	R1351	1-216-073-00	RES,CHIP	10K 5% 1/10W
R1270	1-216-079-00	RES,CHIP	18K 5% 1/10W	R1352	1-216-073-00	RES,CHIP	10K 5% 1/10W
R1271	1-216-057-00	RES,CHIP	2.2K 5% 1/10W	R1353	1-216-115-00	RES,CHIP	560K 5% 1/10W
R1280	1-216-109-00	RES,CHIP	330K 5% 1/10W	R1371	1-216-057-00	RES,CHIP	2.2K 5% 1/10W
R1288	1-216-105-91	RES,CHIP	220K 5% 1/10W	R1372	1-216-057-00	RES,CHIP	2.2K 5% 1/10W
R1290	1-216-071-00	RES,CHIP	8.2K 5% 1/10W	R1373	1-216-057-00	RES,CHIP	2.2K 5% 1/10W
R1291	1-216-081-00	RES,CHIP	22K 5% 1/10W	R1392	1-216-089-91	RES,CHIP	47K 5% 1/10W
R1294	1-216-069-00	RES,CHIP	6.8K 5% 1/10W	R1393	1-216-095-00	RES,CHIP	82K 5% 1/10W
R1295	1-216-109-00	RES,CHIP	330K 5% 1/10W	R1394	1-216-057-00	RES,CHIP	2.2K 5% 1/10W
R1296	1-216-095-00	RES,CHIP	82K 5% 1/10W	R1395	1-216-057-00	RES,CHIP	2.2K 5% 1/10W
R1297	1-216-071-00	RES,CHIP	8.2K 5% 1/10W	R1396	1-216-097-91	RES,CHIP	100K 5% 1/10W
R1298	1-216-071-00	RES,CHIP	8.2K 5% 1/10W	R1397	1-216-097-91	RES,CHIP	100K 5% 1/10W
R1299	1-216-071-00	RES,CHIP	8.2K 5% 1/10W	R1401	1-216-111-00	RES,CHIP	390K 5% 1/10W
R1300	1-216-089-91	RES,CHIP	47K 5% 1/10W	R1402	1-216-689-11	RES,CHIP	39K 5% 1/10W
R1301	1-216-065-91	RES,CHIP	4.7K 5% 1/10W	R1403	1-216-083-00	RES,CHIP	27K 5% 1/10W
R1302	1-216-113-00	RES,CHIP	470K 5% 1/10W	R1404	1-216-689-11	RES,CHIP	39K 5% 1/10W
R1303	1-216-113-00	RES,CHIP	470K 5% 1/10W	R1405	1-216-067-00	RES,CHIP	5.6K 5% 1/10W
R1304	1-216-091-00	RES,CHIP	56K 5% 1/10W	R1406	1-216-067-00	RES,CHIP	5.6K 5% 1/10W
R1305	1-216-093-00	RES,CHIP	68K 5% 1/10W	R1407	1-216-029-00	RES,CHIP	150 5% 1/10W
R1306	1-216-063-91	RES,CHIP	3.9K 5% 1/10W	R1408	1-216-067-00	RES,CHIP	5.6K 5% 1/10W
R1307	1-216-041-00	RES,CHIP	470 5% 1/10W	R1409	1-216-067-00	RES,CHIP	5.6K 5% 1/10W
R1308	1-216-041-00	RES,CHIP	470 5% 1/10W	R1410	1-216-097-91	RES,CHIP	100K 5% 1/10W
R1309	1-216-063-91	RES,CHIP	3.9K 5% 1/10W	R1411	1-216-089-91	RES,CHIP	47K 5% 1/10W
R1310	1-216-119-00	RES,CHIP	820K 5% 1/10W	R1412	1-216-097-91	RES,CHIP	100K 5% 1/10W
R1313	1-216-101-00	RES,CHIP	150K 5% 1/10W	R1413	1-216-073-00	RES,CHIP	10K 5% 1/10W
R1314	1-216-053-00	RES,CHIP	1.5K 5% 1/10W	R1414	1-216-111-00	RES,CHIP	390K 5% 1/10W
R1315	1-216-077-00	RES,CHIP	15K 5% 1/10W				
R1320	1-216-083-00	RES,CHIP	27K 5% 1/10W			<VARIABLE RESISTOR>	
R1321	1-216-093-00	RES,CHIP	68K 5% 1/10W	RV101	1-241-763-11	RES, ADJ, CERMET 4.7K	
R1322	1-216-037-00	RES,CHIP	330 5% 1/10W	RV102	1-241-763-11	RES, ADJ, CERMET 4.7K	
R1323	1-216-057-00	RES,CHIP	2.2K 5% 1/10W	RV103	1-241-759-11	RES, ADJ, CARBON 220	
R1324	1-216-121-91	RES,CHIP	1M 5% 1/10W	RV104	1-241-759-11	RES, ADJ, CARBON 220	
R1325	1-216-085-00	RES,CHIP	33K 5% 1/10W	RV105	1-241-761-11	RES, ADJ, CARBON 1K	
R1326	1-216-065-91	RES,CHIP	4.7K 5% 1/10W	RV106	1-241-761-11	RES, ADJ, CARBON 1K	
R1327	1-216-099-00	RES,CHIP	120K 5% 1/10W	RV107	1-241-761-11	RES, ADJ, CARBON 1K	
R1328	1-216-099-00	RES,CHIP	120K 5% 1/10W	RV108	1-241-764-11	RES, ADJ, CARBON 10K	
R1329	1-216-093-00	RES,CHIP	68K 5% 1/10W	RV109	1-241-765-11	RES, ADJ, CERMET 22K	
R1330	1-216-063-91	RES,CHIP	3.9K 5% 1/10W	RV110	1-241-764-11	RES, ADJ, CARBON 10K	
R1331	1-216-051-00	RES,CHIP	1.2K 5% 1/10W	RV111	1-241-764-11	RES, ADJ, CARBON 10K	
R1332	1-216-057-00	RES,CHIP	2.2K 5% 1/10W	RV112	1-238-019-11	RES, ADJ, CARBON 47K	
R1333	1-216-057-00	RES,CHIP	2.2K 5% 1/10W	RV113	1-238-019-11	RES, ADJ, CARBON 47K	
R1334	1-216-055-00	RES,CHIP	1.8K 5% 1/10W	RV114	1-238-019-11	RES, ADJ, CARBON 47K	
R1335	1-216-035-00	RES,CHIP	270 5% 1/10W	RV115	1-241-765-11	RES, ADJ, CARBON 22K	
R1336	1-216-089-91	RES,CHIP	47K 5% 1/10W				

Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
RV116	1-241-765-11	RES, ADJ, CARBON 22K				<RELAY>	
RV118	1-241-765-11	RES, ADJ, CARBON 22K					
RV119	1-241-765-11	RES, ADJ, CARBON 22K		RY815	1-515-738-11	RELAY	
RV120	1-241-765-11	RES, ADJ, CARBON 22K					
RV121	1-241-765-11	RES, ADJ, CARBON 22K					
RV122	1-241-765-11	RES, ADJ, CARBON 22K					
RV123	1-241-762-11	RES, ADJ, CARBON 2.2K					
RV124	1-241-761-11	RES, ADJ, CARBON 1K					
RV125	1-241-761-11	RES, ADJ, CARBON 1K					
RV205	1-241-765-11	RES, ADJ, CARBON 22K					
RV1400	1-237-036-11	RES, ADJ, CERMET 10K					
RV1401	1-237-036-11	RES, ADJ, CERMET 10K					
		<MODULE>					
SEP101	1-808-654-11	MODULE					
		<CRYSTAL>					
X1400	1-527-722-00	VIBRATOR, CRYSTAL					
X1401	1-577-259-11	VIBRATOR, CRYSTAL					

		* A-1190-333-A PA MOUNT					

		<CAPACITOR>					
C815	1-126-964-11	ELECT	10μF 20% 50V	C801	1-126-971-11	ELECT	470μF 20% 35V
C816	1-117-228-11	FILM	2.2μF 10% 450V	C802	1-102-228-00	CERAMIC	470PF 10% 500V
C817	1-117-228-11	FILM	2.2μF 10% 450V	C803	1-102-228-00	CERAMIC	470PF 10% 500V
		<CONNECTOR>		C804	1-107-638-11	ELECT	33μF 20% 160V
CN806	1-695-915-11	TAB (CONTACT)		C806	1-124-480-11	ELECT	470μF 20% 25V
CN807	* 1-564-506-11	PLUG, CONNECTOR 3P		C807	1-102-228-00	CERAMIC	470PF 10% 500V
CN808	* 1-564-506-11	PLUG, CONNECTOR 3P		C808	1-137-150-11	MYLAR	0.01μF 10% 100V
CN809	* 1-560-123-00	PLUG, CONNECTOR (2.5MM) 3P		C809	1-106-375-12	MYLAR	0.022μF 10% 100V
		<DIODE>		C810	1-162-318-11	CERAMIC	0.001μF 10% 500V
D815	8-719-911-19	DIODE 1SS119-25		C811	△1-137-544-91	FILM	0.01μF 3% 600V
		<TRANSISTOR>		C812	△1-137-545-91	FILM	0.013μF 3% 600V
Q815	8-729-906-24	TRANSISTOR 2SD835		C813	1-107-385-11	MYLAR	0.056μF 5% 200V
Q816	8-729-140-96	TRANSISTOR 2SD774-34		C814	1-137-353-11	MYLAR	0.047μF 10% 100V
		<RESISTOR>		C815	1-124-910-11	ELECT	47μF 20% 50V
R815	1-215-929-11	METAL OXIDE	100K 5% 3W F	C816	1-107-675-11	ELECT	1μF 20% 160V
R816	1-249-429-11	CARBON	10K 5% 1/4W	C818	1-102-228-00	CERAMIC	470PF 10% 500V
R817	1-247-843-11	CARBON	3.3K 5% 1/4W	C819	1-162-116-00	CERAMIC	680PF 10% 2KV
R818	1-202-846-00	SOLID	470K 10% 1/2W	C820	1-162-116-00	CERAMIC	680PF 10% 2KV
				C821	1-162-116-00	CERAMIC	680PF 10% 2KV
				C825	1-123-024-21	ELECT	33μF 160V
				C880	1-163-031-11	CERAMIC CHIP	0.01μF 50V
				C883	1-129-720-00	FILM	0.033μF 5% 630V
						<CONNECTOR>	
				CN801	* 1-564-595-11	PLUG, CONNECTOR 14P	
				CN802	* 1-508-766-00	PIN, CONNECTOR (5MM PITCH) 4P	
				CN803	* 1-564-508-11	PLUG, CONNECTOR 5P	
				CN810	1-695-915-11	TAB (CONTACT)	
				CN811	* 1-564-506-11	PLUG, CONNECTOR 3P	
						<DIODE>	
				D801	8-719-302-43	DIODE EL1Z	
				D802	8-719-302-43	DIODE EL1Z	
				D803	8-719-302-43	DIODE EL1Z	
				D804	8-719-979-85	DIODE EGP20G	
				D805	8-719-302-43	DIODE EL1Z	
				D806	8-719-302-43	DIODE EL1Z	
				D808	8-719-018-72	THYRISTOR CR02AM-4TB	
				D809	8-719-908-03	DIODE GP08D	
				D810	8-719-908-03	DIODE GP08D	
				D811	8-719-908-03	DIODE GP08D	
				D813	8-719-302-43	DIODE EL1Z	

Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
Q403	8-729-216-22	TRANSISTOR 2SA1162-G		R429	1-214-702-00	METAL 75	1% 1/4W
Q404	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R430	1-216-049-91	RES,CHIP 1K	5% 1/10W
Q405	8-729-120-28	TRANSISTOR 2SC1623-L5L6					
Q406	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R431	1-216-093-00	RES,CHIP 68K	5% 1/10W
Q407	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R432	1-216-091-00	RES,CHIP 56K	5% 1/10W
Q408	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R433	1-216-063-91	RES,CHIP 3.9K	5% 1/10W
Q409	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R434	1-216-651-11	METAL CHIP 1K	0.50% 1/10W
Q410	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R435	1-214-702-00	METAL 75	1% 1/4W
Q411	8-729-216-22	TRANSISTOR 2SA1162-G		R436	1-216-049-91	RES,CHIP 1K	5% 1/10W
Q417	8-729-901-06	TRANSISTOR DTA144EK		R437	1-216-093-00	RES,CHIP 68K	5% 1/10W
Q418	8-729-901-06	TRANSISTOR DTA144EK		R438	1-216-091-00	RES,CHIP 56K	5% 1/10W
Q419	8-729-901-06	TRANSISTOR DTA144EK		R439	1-216-063-91	RES,CHIP 3.9K	5% 1/10W
Q421	8-729-901-06	TRANSISTOR DTA144EK		R440	1-216-027-00	RES,CHIP 120	5% 1/10W
Q422	1-801-806-11	TRANSISTOR DTC144EK-T146		R441	1-216-089-91	RES,CHIP 47K	5% 1/10W
Q423	8-729-901-06	TRANSISTOR DTA144EK		R442	1-216-049-91	RES,CHIP 1K	5% 1/10W
Q424	8-729-901-06	TRANSISTOR DTA144EK		R443	1-216-689-11	RES,CHIP 39K	5% 1/10W
Q425	8-729-216-22	TRANSISTOR 2SA1162-G		R444	1-214-702-00	METAL 75	1% 1/4W
Q426	8-729-216-22	TRANSISTOR 2SA1162-G		R445	1-216-049-91	RES,CHIP 1K	5% 1/10W
Q427	8-729-216-22	TRANSISTOR 2SA1162-G		R446	1-216-093-00	RES,CHIP 68K	5% 1/10W
Q428	8-729-216-22	TRANSISTOR 2SA1162-G		R447	1-216-091-00	RES,CHIP 56K	5% 1/10W
Q463	1-801-806-11	TRANSISTOR DTC144EK-T146		R448	1-216-063-91	RES,CHIP 3.9K	5% 1/10W
Q464	1-801-806-11	TRANSISTOR DTC144EK-T146		R449	1-216-651-11	METAL CHIP 1K	0.50% 1/10W
Q1401	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R450	1-214-702-00	METAL 75	1% 1/4W
Q1403	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R451	1-216-049-91	RES,CHIP 1K	5% 1/10W
Q1404	8-729-216-22	TRANSISTOR 2SA1162-G		R452	1-216-091-00	RES,CHIP 56K	5% 1/10W
Q1405	8-729-216-22	TRANSISTOR 2SA1162-G		R453	1-216-093-00	RES,CHIP 68K	5% 1/10W
Q1406	8-729-216-22	TRANSISTOR 2SA1162-G		R454	1-216-063-91	RES,CHIP 3.9K	5% 1/10W
Q1407	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R455	1-216-037-00	RES,CHIP 330	5% 1/10W
		<RESISTOR>		R456	1-216-085-00	RES,CHIP 33K	5% 1/10W
R401	1-214-702-00	METAL 75	1% 1/4W	R457	1-216-085-00	RES,CHIP 33K	5% 1/10W
R402	1-216-049-91	RES,CHIP 1K	5% 1/10W	R458	1-247-707-11	CARBON 390	5% 1/4W
R403	1-216-093-00	RES,CHIP 68K	5% 1/10W	R460	1-216-057-00	RES,CHIP 2.2K	5% 1/10W
R404	1-216-091-00	RES,CHIP 56K	5% 1/10W	R461	1-216-089-91	RES,CHIP 47K	5% 1/10W
R405	1-216-063-91	RES,CHIP 3.9K	5% 1/10W	R486	1-216-037-00	RES,CHIP 330	5% 1/10W
R406	1-216-037-00	RES,CHIP 330	5% 1/10W	R491	1-216-089-91	RES,CHIP 47K	5% 1/10W
R407	1-216-689-11	RES,CHIP 39K	5% 1/10W	R492	1-216-089-91	RES,CHIP 47K	5% 1/10W
R408	1-216-085-00	RES,CHIP 33K	5% 1/10W	R493	1-216-089-91	RES,CHIP 47K	5% 1/10W
R409	1-214-702-00	METAL 75	1% 1/4W	R495	1-216-295-91	SHORT 0	
R410	1-216-049-91	RES,CHIP 1K	5% 1/10W	R496	1-216-057-00	RES,CHIP 2.2K	5% 1/10W
R411	1-216-093-00	RES,CHIP 68K	5% 1/10W	R497	1-216-089-91	RES,CHIP 47K	5% 1/10W
R412	1-216-091-00	RES,CHIP 56K	5% 1/10W	R498	1-216-089-91	RES,CHIP 47K	5% 1/10W
R413	1-216-063-91	RES,CHIP 3.9K	5% 1/10W	R499	1-216-089-91	RES,CHIP 47K	5% 1/10W
R414	1-216-037-00	RES,CHIP 330	5% 1/10W	R1401	1-216-097-91	RES,CHIP 100K	5% 1/10W
R415	1-216-061-00	RES,CHIP 3.3K	5% 1/10W	R1403	1-216-296-91	SHORT 0	
R416	1-216-023-00	RES,CHIP 82	5% 1/10W	R1404	1-216-097-91	RES,CHIP 100K	5% 1/10W
R417	1-216-049-91	RES,CHIP 1K	5% 1/10W	R1406	1-216-689-11	RES,CHIP 39K	5% 1/10W
R418	1-216-093-00	RES,CHIP 68K	5% 1/10W	R1407	1-216-037-00	RES,CHIP 330	5% 1/10W
R419	1-216-091-00	RES,CHIP 56K	5% 1/10W	R1408	1-216-061-00	RES,CHIP 3.3K	5% 1/10W
R420	1-216-063-91	RES,CHIP 3.9K	5% 1/10W	R1410	1-216-689-11	RES,CHIP 39K	5% 1/10W
R421	1-216-027-00	RES,CHIP 120	5% 1/10W	R1411	1-216-037-00	RES,CHIP 330	5% 1/10W
R422	1-214-702-00	METAL 75	1% 1/4W	R1412	1-216-061-00	RES,CHIP 3.3K	5% 1/10W
R423	1-214-702-00	METAL 75	1% 1/4W	R1413	1-216-049-91	RES,CHIP 1K	5% 1/10W
R424	1-216-049-91	RES,CHIP 1K	5% 1/10W	R1414	1-216-689-11	RES,CHIP 39K	5% 1/10W
R425	1-216-093-00	RES,CHIP 68K	5% 1/10W	R1415	1-216-037-00	RES,CHIP 330	5% 1/10W
R426	1-216-091-00	RES,CHIP 56K	5% 1/10W	R1416	1-216-061-00	RES,CHIP 3.3K	5% 1/10W
R427	1-216-063-91	RES,CHIP 3.9K	5% 1/10W	R1418	1-216-689-11	RES,CHIP 39K	5% 1/10W
R428	1-216-037-00	RES,CHIP 330	5% 1/10W	R1419	1-216-037-00	RES,CHIP 330	5% 1/10W
				R1420	1-216-061-00	RES,CHIP 3.3K	5% 1/10W
				R1421	1-246-451-15	CARBON 120	5% 1/4W

Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
C577	1-124-903-11	ELECT	1μF 20% 50V	D508	8-719-404-49	DIODE MA111	
C831	1-107-906-11	ELECT	10μF 20% 50V	D511	8-719-404-49	DIODE MA111	
C832	1-107-906-11	ELECT	10μF 20% 50V	D512	8-719-404-49	DIODE MA111	
C833	1-163-009-11	CERAMIC CHIP	0.001μF 10% 50V	D514	8-719-404-49	DIODE MA111	
C834	1-163-121-00	CERAMIC CHIP	150PF 5% 50V				
C835	1-163-209-00	CERAMIC CHIP	0.0015μF 5% 50V	D520	8-719-800-76	DIODE 1SS226	
C836	1-126-964-11	ELECT	10μF 20% 50V	D521	8-719-800-76	DIODE 1SS226	
C837	1-163-209-00	CERAMIC CHIP	0.0015μF 5% 50V	D831	8-719-404-49	DIODE MA111	
C838	1-136-495-11	FILM	0.068μF 5% 50V	D832	8-719-404-49	DIODE MA111	
C839	1-136-481-11	MYLAR	0.0022μF 10% 100V	D833	8-719-404-49	DIODE MA111	
C840	1-163-209-00	CERAMIC CHIP	0.0015μF 5% 50V	D834	8-719-404-49	DIODE MA111	
C841	1-163-209-00	CERAMIC CHIP	0.0015μF 5% 50V	D835	8-719-109-89	DIODE RD5.6ESB2	
C843	1-107-901-11	ELECT	0.47μF 20% 50V	D836	8-719-977-69	DIODE DTZ24B	
C844	1-107-901-11	ELECT	0.47μF 20% 50V	D848	8-719-800-76	DIODE 1SS226	
C845	1-107-888-11	ELECT	47μF 20% 25V	D1601	8-719-105-99	DIODE RD6.2M-B1	
C846	1-107-906-11	ELECT	10μF 20% 50V				
C847	1-126-965-11	ELECT	22μF 20% 50V	D1603	8-719-977-61	DIODE DTZ20B	
C848	1-131-351-00	TANTALUM	4.7μF 10% 35V	D1606	8-719-981-00	DIODE ERC81-004	
C849	1-164-182-11	CERAMIC CHIP	0.0033μF 10% 50V	D1607	8-719-981-00	DIODE ERC81-004	
C1601	1-126-964-11	ELECT	10μF 20% 50V	D1608	8-719-978-24	DIODE DTZ-TT11-5.6A	
C1602	1-164-161-11	CERAMIC CHIP	0.0022μF 10% 50V	D1609	8-719-977-49	DIODE DTZ15B	
C1603	1-111-108-11	ELECT	18μF 20% 50V				
C1604	1-115-842-11	ELECT	0.001F 20% 50V	D1610	8-719-404-49	DIODE MA111	
C1605	1-126-972-11	ELECT	1000μF 20% 50V	D1611	1-249-387-11	CARBON 3.3 5% 1/4W	
C1606	1-163-009-11	CERAMIC CHIP	0.001μF 10% 50V	D1612	8-719-404-49	DIODE MA111	
C1607	1-126-964-11	ELECT	10μF 20% 50V	D1615	8-719-404-49	DIODE MA111	
C1608	1-126-965-11	ELECT	22μF 20% 50V	D1617	8-719-977-49	DIODE DTZ15B	
C1609	1-163-009-11	CERAMIC CHIP	0.001μF 10% 50V				
C1610	1-126-963-11	ELECT	4.7μF 20% 50V	D1618	8-719-977-49	DIODE DTZ15B	
C1611	1-104-668-11	ELECT	33μF 20% 35V	D1620	8-719-801-78	DIODE 1SS184	
C1612	1-136-257-00	FILM	0.0039μF 5% 50V	D1622	8-719-801-78	DIODE 1SS184	
C1614	1-163-021-91	CERAMIC CHIP	0.01μF 10% 50V	D1623	8-719-801-78	DIODE 1SS184	
C1615	1-107-901-11	ELECT	0.47μF 20% 50V	D1626	8-719-404-49	DIODE MA111	
C1620	1-163-133-00	CERAMIC CHIP	470PF 5% 50V				
C1621	1-163-117-00	CERAMIC CHIP	100PF 5% 50V	D1627	8-719-404-49	DIODE MA111	
C1641	1-163-035-00	CERAMIC CHIP	0.047μF 50V	D1628	8-719-404-49	DIODE MA111	
C1642	1-126-964-11	ELECT	10μF 20% 50V	D1635	8-719-404-49	DIODE MA111	
C1643	1-126-964-11	ELECT	10μF 20% 50V	D1699	8-719-404-49	DIODE MA111	
<CONNECTOR>				<FUSE>			
CN501	* 1-564-506-11	PLUG, CONNECTOR	3P	F1601	△ 1-532-777-21	FUSE, MICRO (SECONDARY)	1.25A/125V
CN502	* 1-564-011-11	PIN, CONNECTOR	12P	F1602	△ 1-532-747-11	FUSE, GLASS TUBE (H.B.C.)	5.0A/125V (BVM-8045QD)
CN504	* 1-564-508-11	PLUG, CONNECTOR	5P	F1602	△ 1-576-232-11	FUSE (H.B.C.)	5.0A/250V (BVM-9045D)
CN505	* 1-564-509-11	PLUG, CONNECTOR	6P	<IC>			
CN508	* 1-580-837-11	PIN, CONNECTOR (PC BOARD)	3P	IC501	8-759-909-70	IC CX23025	
CN509	* 1-564-506-11	PLUG, CONNECTOR	3P	IC502	8-759-100-60	IC UPC1377C	
CN510	* 1-564-506-11	PLUG, CONNECTOR	3P	IC503	8-759-801-98	IC LA7830	
CN511	* 1-564-506-11	PLUG, CONNECTOR	3P	IC504	8-759-231-58	IC TA7812S	
CN600	* 1-564-001-11	PIN, CONNECTOR	2P	IC505	8-759-009-51	IC MC14538BF	
<DIODE>				IC506	8-759-209-54	IC TC4S01F	
D501	8-719-404-49	DIODE MA111		IC507	8-759-209-69	IC TC4S11F	
D502	8-719-404-49	DIODE MA111		IC831	8-759-473-06	IC BU4011BF-E2	
D503	8-719-404-49	DIODE MA111		IC832	8-759-473-07	IC BU4070BF-E2	
D504	8-719-404-49	DIODE MA111		IC833	8-759-009-51	IC MC14538BF	
D506	8-719-908-03	DIODE GP08D		IC1601	8-759-510-73	IC BA10393F-E2	
D507	8-719-404-49	DIODE MA111		<CHIP CONDUCTOR>			
				JR510	1-216-295-91	SHORT 0	
				JR518	1-216-295-91	SHORT 0	



Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
JR601	1-216-295-91	SHORT 0		Q1619	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
JR602	1-216-295-91	SHORT 0		Q1620	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
	<COIL>				<RESISTOR>		
L501	1-414-502-41	INDUCTOR	33mH	R501	1-216-089-91	RES,CHIP	47K 5% 1/10W
L502	1-410-665-31	INDUCTOR	15μH	R502	1-216-089-91	RES,CHIP	47K 5% 1/10W
L503	1-424-625-11	INDUCTOR	381.4μH	R503	1-249-437-11	CARBON	47K 5% 1/4W F
L506	1-412-530-31	INDUCTOR	27μH	R504	1-216-073-00	RES,CHIP	10K 5% 1/10W
L1601	1-459-155-00	COIL (WITH CORE)	45μH	R505	1-249-393-11	CARBON	10 5% 1/4W F
L1602	1-402-785-11	INDUCTOR	600μH	R506	1-216-071-00	RES,CHIP	8.2K 5% 1/10W
L1603	1-410-397-21	FERRITE	1.1μH	R507	1-216-059-00	RES,CHIP	2.7K 5% 1/10W
	<TRANSISTOR>			R508	1-216-085-00	RES,CHIP	33K 5% 1/10W
Q501	1-801-806-11	TRANSISTOR DTC144EKA-T146		R509	1-216-687-11	METAL CHIP	33K 0.50% 1/10W
Q502	1-801-806-11	TRANSISTOR DTC144EKA-T146		R510	1-216-683-11	METAL CHIP	22K 0.50% 1/10W
Q503	8-729-901-06	TRANSISTOR DTA144EK		R511	1-216-675-11	METAL CHIP	10K 0.50% 1/10W
Q504	1-801-806-11	TRANSISTOR DTC144EKA-T146		R512	1-218-761-11	METAL CHIP	240K 0.50% 1/10W
Q505	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R513	1-216-065-91	RES,CHIP	4.7K 5% 1/10W
Q508	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R514	1-218-754-11	METAL CHIP	120K 0.50% 1/10W
Q509	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R515	1-216-081-00	RES,CHIP	22K 5% 1/10W
Q512	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R516	1-216-073-00	RES,CHIP	10K 5% 1/10W
Q513	8-729-216-22	TRANSISTOR 2SA1162-G		R517	1-218-762-11	METAL CHIP	270K 0.50% 1/10W
Q514	8-729-216-22	TRANSISTOR 2SA1162-G		R518	1-249-422-11	CARBON	2.7K 5% 1/4W F
Q515	8-729-313-42	TRANSISTOR 2SD1134-C		R519	1-216-085-00	RES,CHIP	33K 5% 1/10W
Q518	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R520	1-216-677-11	METAL CHIP	12K 0.50% 1/10W
Q519	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R521	1-216-067-00	RES,CHIP	5.6K 5% 1/10W
Q532	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R522	1-216-107-00	RES,CHIP	270K 5% 1/10W
Q569	8-729-907-26	TRANSISTOR IMX1		R523	1-216-081-00	RES,CHIP	22K 5% 1/10W
Q570	8-729-901-00	TRANSISTOR DTC124EK		R524	1-216-049-91	RES,CHIP	1K 5% 1/10W
Q571	8-729-901-00	TRANSISTOR DTC124EK		R525	1-216-434-11	METAL OXIDE	1.8K 5% 1W F
Q576	1-801-806-11	TRANSISTOR DTC144EKA-T146		R526	1-216-079-00	RES,CHIP	18K 5% 1/10W
Q579	8-729-920-48	TRANSISTOR IMH2		R527	1-249-437-11	CARBON	47K 5% 1/4W F
Q599	8-729-920-48	TRANSISTOR IMH2		R528	1-216-073-00	RES,CHIP	10K 5% 1/10W
Q600	8-729-901-00	TRANSISTOR DTC124EK		R529	1-216-073-00	RES,CHIP	10K 5% 1/10W
Q601	8-729-901-00	TRANSISTOR DTC124EK		R530	1-216-089-91	RES,CHIP	47K 5% 1/10W
Q833	8-729-216-22	TRANSISTOR 2SA1162-G		R531	1-216-089-91	RES,CHIP	47K 5% 1/10W
Q834	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R532	1-216-097-91	RES,CHIP	100K 5% 1/10W
Q835	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R533	1-216-089-91	RES,CHIP	47K 5% 1/10W
Q836	8-729-255-12	TRANSISTOR 2SC2551-O		R534	1-216-097-91	RES,CHIP	100K 5% 1/10W
Q1601	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R535	1-216-053-00	RES,CHIP	1.5K 5% 1/10W
Q1602	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R536	1-212-881-11	FUSIBLE	100 5% 1/4W F
Q1603	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R537	1-215-867-00	METAL OXIDE	470 5% 1W F
Q1604	8-729-216-22	TRANSISTOR 2SA1162-G		R538	1-216-095-00	RES,CHIP	82K 5% 1/10W
Q1605	8-729-119-80	TRANSISTOR 2SC2688-LK		R539	1-216-095-00	RES,CHIP	82K 5% 1/10W
Q1606	8-729-133-42	TRANSISTOR 2SC2334-L		R540	1-216-101-00	RES,CHIP	150K 5% 1/10W
Q1607	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R541	1-216-063-91	RES,CHIP	3.9K 5% 1/10W
Q1608	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R542	1-216-075-00	RES,CHIP	12K 5% 1/10W
Q1609	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R543	1-216-065-91	RES,CHIP	4.7K 5% 1/10W
Q1610	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R544	1-216-101-00	RES,CHIP	150K 5% 1/10W
Q1611	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R545	1-216-033-00	RES,CHIP	220 5% 1/10W
Q1612	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R546	1-216-091-00	RES,CHIP	56K 5% 1/10W
Q1613	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R547	1-216-121-91	RES,CHIP	1M 5% 1/10W
Q1614	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R548	1-216-107-00	RES,CHIP	270K 5% 1/10W
Q1615	8-729-216-22	TRANSISTOR 2SA1162-G		R549	1-216-101-00	RES,CHIP	150K 5% 1/10W
Q1616	8-729-216-22	TRANSISTOR 2SA1162-G		R550	1-216-357-00	METAL OXIDE	4.7 5% 1W F
Q1617	8-729-216-22	TRANSISTOR 2SA1162-G		R552	1-216-061-00	RES,CHIP	3.3K 5% 1/10W
Q1618	8-729-216-22	TRANSISTOR 2SA1162-G		R553	1-216-689-11	RES,CHIP	39K 5% 1/10W
				R554	1-216-073-00	RES,CHIP	10K 5% 1/10W
				R555	1-216-077-00	RES,CHIP	15K 5% 1/10W

Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
R557	1-216-057-00	RES,CHIP	2.2K 5% 1/10W	R863	1-249-435-11	CARBON	33K 5% 1/4W F
R558	1-216-049-91	RES,CHIP	1K 5% 1/10W	R1503	1-216-049-91	RES,CHIP	1K 5% 1/10W
R559	1-216-065-91	RES,CHIP	4.7K 5% 1/10W	R1504	1-216-695-11	METAL CHIP	68K 0.50% 1/10W
R560	1-216-037-00	RES,CHIP	330 5% 1/10W	R1505	1-216-089-91	RES,CHIP	47K 5% 1/10W
R561	1-216-081-00	RES,CHIP	22K 5% 1/10W	R1506	1-216-667-11	METAL CHIP	4.7K 0.50% 1/10W
R562	1-216-053-00	RES,CHIP	1.5K 5% 1/10W	R1507	1-216-081-00	RES,CHIP	22K 5% 1/10W
R563	1-216-061-00	RES,CHIP	3.3K 5% 1/10W	R1508	1-216-073-00	RES,CHIP	10K 5% 1/10W
R564	1-249-415-11	CARBON	680 5% 1/4W F	R1509	1-216-065-91	RES,CHIP	4.7K 5% 1/10W
R565	1-216-059-00	RES,CHIP	2.7K 5% 1/10W	R1510	1-249-425-11	CARBON	4.7K 5% 1/4W F
R566	1-216-025-91	RES,CHIP	100 5% 1/10W	R1511	1-216-033-00	RES,CHIP	220 5% 1/10W
R567	1-216-095-00	RES,CHIP	82K 5% 1/10W	R1512	1-216-049-91	RES,CHIP	1K 5% 1/10W
R568	1-216-063-91	RES,CHIP	3.9K 5% 1/10W	R1513	1-216-017-91	RES,CHIP	47 5% 1/10W
R569	1-216-063-91	RES,CHIP	3.9K 5% 1/10W	R1519	1-216-025-91	RES,CHIP	100 5% 1/10W
R570	1-216-093-00	RES,CHIP	68K 5% 1/10W	R1520	1-216-053-00	RES,CHIP	1.5K 5% 1/10W
R571	1-216-089-91	RES,CHIP	47K 5% 1/10W	R1601	1-216-685-11	METAL CHIP	27K 0.50% 1/10W
R572	1-216-095-00	RES,CHIP	82K 5% 1/10W	R1602	1-216-681-11	METAL CHIP	18K 0.50% 1/10W
R573	1-216-063-91	RES,CHIP	3.9K 5% 1/10W	R1603	1-216-671-11	METAL CHIP	6.8K 0.50% 1/10W
R574	1-216-063-91	RES,CHIP	3.9K 5% 1/10W	R1604	1-249-433-11	CARBON	22K 5% 1/4W F
R575	1-216-105-91	RES,CHIP	220K 5% 1/10W	R1605	1-216-070-00	RES,CHIP	7.5K 5% 1/10W
R576	1-216-109-00	RES,CHIP	330K 5% 1/10W	R1606	1-216-070-00	RES,CHIP	7.5K 5% 1/10W
R577	1-216-105-91	RES,CHIP	220K 5% 1/10W	R1607	1-216-071-00	RES,CHIP	8.2K 5% 1/10W
R578	1-249-457-71	CARBON	6.8 5% 1/4W F	R1608	1-216-065-91	RES,CHIP	4.7K 5% 1/10W
R579	1-249-457-71	CARBON	6.8 5% 1/4W F	R1609	1-216-069-00	RES,CHIP	6.8K 5% 1/10W
R589	1-216-101-00	RES,CHIP	150K 5% 1/10W	R1610	1-216-057-00	RES,CHIP	2.2K 5% 1/10W
R591	1-216-063-91	RES,CHIP	3.9K 5% 1/10W	R1611	1-216-057-00	RES,CHIP	2.2K 5% 1/10W
R592	1-216-033-00	RES,CHIP	220 5% 1/10W	R1612	1-215-913-11	METAL OXIDE	220 5% 3W F
R593	1-216-101-00	RES,CHIP	150K 5% 1/10W	R1613	1-216-025-91	RES,CHIP	100 5% 1/10W
R594	1-216-065-91	RES,CHIP	4.7K 5% 1/10W	R1614	1-216-067-00	RES,CHIP	5.6K 5% 1/10W
R600	1-216-069-00	RES,CHIP	6.8K 5% 1/10W	R1615	1-216-657-11	METAL CHIP	1.8K 0.50% 1/10W
R601	1-216-041-00	RES,CHIP	470K 5% 1/10W	R1616	1-216-629-11	METAL CHIP	120 0.50% 1/10W
R831	1-216-049-91	RES,CHIP	1K 5% 1/10W	R1617	1-216-659-11	METAL CHIP	2.2K 0.50% 1/10W
R832	1-216-075-00	RES,CHIP	12K 5% 1/10W	R1618	1-216-073-00	RES,CHIP	10K 5% 1/10W
R833	1-216-065-91	RES,CHIP	4.7K 5% 1/10W	R1620	1-216-065-91	RES,CHIP	4.7K 5% 1/10W
R834	1-216-059-00	RES,CHIP	2.7K 5% 1/10W	R1621	1-216-073-00	RES,CHIP	10K 5% 1/10W
R835	1-216-081-00	RES,CHIP	22K 5% 1/10W	R1622	1-216-073-00	RES,CHIP	10K 5% 1/10W
R836	1-216-049-91	RES,CHIP	1K 5% 1/10W	R1623	1-216-073-00	RES,CHIP	10K 5% 1/10W
R837	1-216-075-00	RES,CHIP	12K 5% 1/10W	R1624	1-216-246-00	RES,CHIP	100K 5% 1/8W
R838	1-216-049-91	RES,CHIP	1K 5% 1/10W	R1625	1-216-061-00	RES,CHIP	3.3K 5% 1/10W
R839	1-216-061-00	RES,CHIP	3.3K 5% 1/10W	R1626	1-216-065-91	RES,CHIP	4.7K 5% 1/10W
R840	1-216-097-91	RES,CHIP	100K 5% 1/10W	R1627	1-216-049-91	RES,CHIP	1K 5% 1/10W
R841	1-216-093-00	RES,CHIP	68K 5% 1/10W	R1628	1-216-073-00	RES,CHIP	10K 5% 1/10W
R842	1-216-093-00	RES,CHIP	68K 5% 1/10W	R1629	1-216-683-11	METAL CHIP	22K 0.50% 1/10W
R843	1-216-065-91	RES,CHIP	4.7K 5% 1/10W	R1630	1-216-683-11	METAL CHIP	22K 0.50% 1/10W
R844	1-216-077-00	RES,CHIP	15K 5% 1/10W	R1631	1-216-057-00	RES,CHIP	2.2K 5% 1/10W
R847	1-216-049-91	RES,CHIP	1K 5% 1/10W	R1632	1-216-042-00	RES,CHIP	510 5% 1/10W
R850	1-216-085-00	RES,CHIP	33K 5% 1/10W	R1633	1-216-109-00	RES,CHIP	330K 5% 1/10W
R851	1-216-669-11	METAL CHIP	5.6K 0.50% 1/10W	R1634	1-216-099-00	RES,CHIP	120K 5% 1/10W
R852	1-216-675-11	METAL CHIP	10K 0.50% 1/10W	R1635	1-216-097-91	RES,CHIP	100K 5% 1/10W
R853	1-216-105-91	RES,CHIP	220K 5% 1/10W	R1636	1-216-073-00	RES,CHIP	10K 5% 1/10W
R854	1-218-754-11	METAL CHIP	120K 0.50% 1/10W	R1640	1-216-063-91	RES,CHIP	3.9K 5% 1/10W
R855	1-216-697-91	METAL CHIP	82K 0.50% 1/10W	R1641	1-216-073-00	RES,CHIP	10K 5% 1/10W
R856	1-216-699-11	METAL CHIP	100K 0.50% 1/10W	R1642	1-216-073-00	RES,CHIP	10K 5% 1/10W
R857	1-216-686-11	METAL CHIP	30K 0.50% 1/10W	R1643	1-216-069-00	RES,CHIP	6.8K 5% 1/10W
R858	1-216-061-00	RES,CHIP	3.3K 5% 1/10W	R1644	1-216-069-00	RES,CHIP	6.8K 5% 1/10W
R859	1-216-436-00	METAL OXIDE	3.9K 5% 1W F	R1645	1-216-073-00	RES,CHIP	10K 5% 1/10W
R860	1-216-675-11	METAL CHIP	10K 0.50% 1/10W	R1646	1-216-073-00	RES,CHIP	10K 5% 1/10W
R861	1-216-671-11	METAL CHIP	6.8K 0.50% 1/10W	R1647	1-216-685-11	METAL CHIP	27K 0.50% 1/10W
R862	1-216-675-11	METAL CHIP	10K 0.50% 1/10W	R1648	1-216-069-00	RES,CHIP	6.8K 5% 1/10W



Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
R1649	1-216-069-00	RES,CHIP	6.8K 5% 1/10W	*****			
R1650	1-216-069-00	RES,CHIP	6.8K 5% 1/10W				
R1651	1-216-069-00	RES,CHIP	6.8K 5% 1/10W			* A-1372-584-A HA MOUNT	
R1652	1-216-069-00	RES,CHIP	6.8K 5% 1/10W			*****	
R1653	1-216-069-00	RES,CHIP	6.8K 5% 1/10W			* 4-348-208-00 HOLDER, LED	
R1654	1-216-681-11	METAL CHIP	18K 0.50% 1/10W			<CAPACITOR>	
R1655	1-216-081-00	RES,CHIP	22K 5% 1/10W				
R1656	1-216-643-11	METAL CHIP	470 0.50% 1/10W				
R1657	1-216-081-00	RES,CHIP	22K 5% 1/10W				
R1658	1-216-063-91	RES,CHIP	3.9K 5% 1/10W	C001	1-163-038-91	CERAMIC CHIP 0.1μF	25V
				C002	1-163-038-91	CERAMIC CHIP 0.1μF	25V
R1659	1-216-049-91	RES,CHIP	1K 5% 1/10W			<CONNECTOR>	
R1660	1-216-649-11	METAL CHIP	820 0.50% 1/10W				
R1661	1-216-065-91	RES,CHIP	4.7K 5% 1/10W				
R1691	1-216-073-00	RES,CHIP	10K 5% 1/10W				
R1692	1-216-081-00	RES,CHIP	22K 5% 1/10W	CN001	1-506-478-11	PIN, CONNECTOR 13P	
				CN002	* 1-564-009-11	PIN, CONNECTOR 10P	
				CN003	* 1-564-004-11	PIN, CONNECTOR 5P	
R1693	1-216-061-00	RES,CHIP	3.3K 5% 1/10W			<DIODE>	
R1694	1-216-081-00	RES,CHIP	22K 5% 1/10W				
R1695	1-216-061-00	RES,CHIP	3.3K 5% 1/10W				
R1696	1-216-073-00	RES,CHIP	10K 5% 1/10W				
		<VARIABLE RESISTOR>		D001	8-719-920-05	DIODE SLP281C-50	
				D002	8-719-109-68	DIODE RD3.6ESB1	
				D003	8-719-404-49	DIODE MA111	
RV501	1-238-019-11	RES, ADJ, CARBON 47K				<IC>	
RV502	1-241-765-11	RES, ADJ, CARBON 22K					
RV503	1-241-763-11	RES, ADJ, CERMET 4.7K					
RV504	1-224-250-XX	RES, ADJ, METAL GLAZE 2.2K					
RV505	1-241-759-11	RES, ADJ, CARBON 220		IC001	8-759-209-69	IC TC4S11F	
RV507	1-241-762-11	RES, ADJ, CARBON 2.2K				<CHIP CONDUCTOR>	
RV508	1-241-761-11	RES, ADJ, CARBON 1K					
RV509	1-241-768-11	RES, ADJ, CARBON 220K					
RV511	1-241-763-11	RES, ADJ, CARBON 4.7K		JR003	1-216-295-91	SHORT 0	
RV512	1-241-763-11	RES, ADJ, CARBON 4.7K		JR006	1-216-295-91	SHORT 0	
RV514	1-238-019-11	RES, ADJ, CARBON 47K				<TRANSISTOR>	
RV515	1-241-768-11	RES, ADJ, CARBON 220K					
RV516	1-241-763-11	RES, ADJ, CERMET 4.7K					
RV517	1-241-760-11	RES, ADJ, CARBON 470		Q001	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
RV518	1-241-763-11	RES, ADJ, CARBON 4.7K				<RESISTOR>	
RV831	1-228-997-00	RES, ADJ, METAL GLAZE 100K					
RV832	1-241-764-11	RES, ADJ, CERMET 10K		R001	1-247-713-11	CARBON 1K 5% 1/4W	
RV833 Δ		RES, ADJ, METAL GLAZE 47K		R004	1-216-081-00	RES,CHIP 22K 5% 1/10W	
RV1601	1-241-762-11	RES, ADJ, CERMET 2.2K		R006	1-216-049-91	RES,CHIP 1K 5% 1/10W	
RV1602	1-241-761-11	RES, ADJ, CARBON 1K		R007	1-216-049-91	RES,CHIP 1K 5% 1/10W	
				R008	1-216-061-00	RES,CHIP 3.3K 5% 1/10W	
RV1603Δ		RES, ADJ, METAL GLAZE 47K					
		<RELAY>		R009	1-216-049-91	RES,CHIP 1K 5% 1/10W	
				R010	1-216-057-00	RES,CHIP 2.2K 5% 1/10W	
RY1601	1-755-022-11	RELAY, POWER				<VARIABLE RESISTOR>	
		<TRANSFORMER>		RV002	1-225-385-11	RES, VAR, CARBON 20K	
				RV003	1-225-385-11	RES, VAR, CARBON 20K	
T1601	1-437-216-11	TRANSFORMER, DRIVE		RV004	1-225-385-11	RES, VAR, CARBON 20K	
				RV005	1-225-385-11	RES, VAR, CARBON 20K	
				RV006	1-225-385-11	RES, VAR, CARBON 20K	
				RV007	1-226-773-11	RES, ADJ, METAL GLAZE 22K	
				RV008	1-226-773-11	RES, ADJ, METAL GLAZE 22K	
				RV009	1-226-773-11	RES, ADJ, METAL GLAZE 22K	
				RV010	1-226-773-11	RES, ADJ, METAL GLAZE 22K	
				RV011	1-226-773-11	RES, ADJ, METAL GLAZE 22K	

Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
RV012	1-226-773-11	RES, ADJ, METAL GLAZE 22K		C1114	1-163-103-00	CERAMIC CHIP 27PF	5% 50V
		<SWITCH>		C1115	1-164-004-11	CERAMIC CHIP 0.1μF	10% 25V
S001	1-554-419-00	SWITCH, PUSH (1 KEY)		C1116	1-163-248-11	CERAMIC CHIP 75PF	5% 50V
S002	1-554-419-00	SWITCH, PUSH (1 KEY)		C1117	1-124-589-11	ELECT 47μF	20% 16V
S003	1-554-419-00	SWITCH, PUSH (1 KEY)		C1118	1-164-004-11	CERAMIC CHIP 0.1μF	10% 25V
S004	1-554-419-00	SWITCH, PUSH (1 KEY)		C1119	1-163-020-00	CERAMIC CHIP 0.0082μF	10% 50V
S005	1-554-419-00	SWITCH, PUSH (1 KEY)		C1120	1-163-231-11	CERAMIC CHIP 15PF	5% 50V
S006	1-554-419-00	SWITCH, PUSH (1 KEY)		C1121	1-163-231-11	CERAMIC CHIP 15PF	5% 50V
S007	1-572-522-11	SWITCH, PUSH (1 KEY)		C1122	1-163-222-11	CERAMIC CHIP 5PF	0.25PF 50V
S008	1-554-419-00	SWITCH, PUSH (1 KEY)		C1123	1-163-097-00	CERAMIC CHIP 15PF	5% 50V
				C1130	1-163-097-00	CERAMIC CHIP 15PF	5% 50V
				C1131	1-163-097-00	CERAMIC CHIP 15PF	5% 50V
*****				<CONNECTOR>			
		* A-1390-454-A MOUNTED PWB, T		CN1101	* 1-565-488-11	CONNECTOR, BOARD TO BOARD 12P	
		*****		<DIODE>			
		<CONNECTOR>		D1101	8-719-404-49	DIODE MA111	
CN1	* 1-766-745-11	CONNECTOR, BOARD TO BOARD 12P		D1102	8-719-404-49	DIODE MA111	
CN2	* 1-564-507-11	PLUG, CONNECTOR 4P		<IC>			
CN3	* 1-564-511-11	PLUG, CONNECTOR 8P		IC001	8-759-209-69	IC TC4S11F	
*****				<COIL>			
		* A-1390-455-A MOUNTED PWB, X		L1101	1-408-605-31	INDUCTOR 15μH	
		*****		L1102	1-404-496-00	COIL	
CN21	* 1-564-518-11	PLUG, CONNECTOR 3P		L1103	1-404-496-00	COIL	
		<DIODE>		L1104	1-408-605-31	INDUCTOR 15μH	
D21	8-719-023-78	DIODE SEL3810DLC05		L1110	1-412-008-31	INDUCTOR CHIP 15μH	
D22	8-719-023-78	DIODE SEL3810DLC05		L1111	1-412-008-31	INDUCTOR CHIP 15μH	
D23	8-719-023-78	DIODE SEL3810DLC05		<TRANSISTOR>			
*****				Q1101	8-729-216-22	TRANSISTOR 2SA1162-G	
		* A-1394-917-A S COMPLETE		Q1102	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
		*****		Q1103	8-729-216-22	TRANSISTOR 2SA1162-G	
		<CAPACITOR>		Q1104	8-729-216-22	TRANSISTOR 2SA1162-G	
C1101	1-163-119-00	CERAMIC CHIP 120PF	5% 50V	Q1105	1-801-806-11	TRANSISTOR DTC144EK-T147	
C1102	1-164-004-11	CERAMIC CHIP 0.1μF	10% 25V	Q1106	1-801-806-11	TRANSISTOR DTC144EK-T147	
C1103	1-124-589-11	ELECT 47μF	20% 16V	Q1107	8-729-109-44	TRANSISTOR 2SK94-X4	
C1104	1-163-031-11	CERAMIC CHIP 0.01μF	50V	Q1108	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
C1105	1-163-248-11	CERAMIC CHIP 75PF	5% 50V	<RESISTOR>			
C1106	1-163-101-00	CERAMIC CHIP 22PF	5% 50V	R1101	1-216-053-00	RES,CHIP 1.5K	5% 1/10W
C1107	1-164-004-11	CERAMIC CHIP 0.1μF	10% 25V	R1102	1-216-067-00	RES,CHIP 5.6K	5% 1/10W
C1108	1-163-119-00	CERAMIC CHIP 120PF	5% 50V	R1103	1-216-059-00	RES,CHIP 2.7K	5% 1/10W
C1109	1-163-031-11	CERAMIC CHIP 0.01μF	50V	R1104	1-216-073-00	RES,CHIP 10K	5% 1/10W
C1110	1-163-117-00	CERAMIC CHIP 100PF	5% 50V	R1105	1-216-031-00	RES,CHIP 180	5% 1/10W
C1111	1-163-018-00	CERAMIC CHIP 0.0056μF	10% 50V	R1106	1-216-059-00	RES,CHIP 2.7K	5% 1/10W
C1112	1-126-160-11	ELECT 1μF	20% 50V	R1107	1-216-071-00	RES,CHIP 8.2K	5% 1/10W
C1113	1-163-119-00	CERAMIC CHIP 120PF	5% 50V	R1108	1-216-039-00	RES,CHIP 390	5% 1/10W
				R1109	1-216-063-91	RES,CHIP 3.9K	5% 1/10W
				R1110	1-216-069-00	RES,CHIP 6.8K	5% 1/10W



Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
R1111	1-216-065-91	RES,CHIP	4.7K 5% 1/10W	C653	1-126-969-11	ELECT 220MF 20% 35V	
R1112	1-216-059-00	RES,CHIP	2.7K 5% 1/10W	C654	1-130-483-91	FILM 0.01MF 5% 50V	
R1113	1-216-069-00	RES,CHIP	6.8K 5% 1/10W				
R1114	1-216-055-00	RES,CHIP	1.8K 5% 1/10W				
R1115	1-216-061-00	RES,CHIP	3.3K 5% 1/10W			<CONNECTOR>	
R1116	1-216-069-00	RES,CHIP	6.8K 5% 1/10W	CN610	* 1-560-436-00	PIN,CONNECTOR 3P	
R1117	1-216-061-00	RES,CHIP	3.3K 5% 1/10W	CN651	* 1-564-518-11	PLUG,CONNECTOR 3P	
R1118	1-216-073-00	RES,CHIP	10K 5% 1/10W				
R1119	1-216-049-91	RES,CHIP	1K 5% 1/10W			<DIODE>	
R1120	1-216-097-91	RES,CHIP	100K 5% 1/10W				
R1121	1-216-121-91	RES,CHIP	1M 5% 1/10W	D601	△ 8-719-510-22	DIODE D3SB60	
R1122	1-216-039-00	RES,CHIP	390 5% 1/10W	D602	8-719-911-19	DIODE 1SS119-25	
R1123	1-216-065-91	RES,CHIP	4.7K 5% 1/10W	D603	8-719-970-87	DIODE ERA38-06	
R1124	1-216-029-00	RES,CHIP	150 5% 1/10W	D604	8-719-970-87	DIODE ERA38-06	
R1125	1-216-029-00	RES,CHIP	150 5% 1/10W	D605	8-719-110-53	DIODE RD20ESB3	
R1126	1-216-053-00	RES,CHIP	1.5K 5% 1/10W	D651	9-907-820-01	DIODE ESAC39M	
R1127	1-216-043-91	RES,CHIP	560 5% 1/10W				
R1128	1-216-049-91	RES,CHIP	1K 5% 1/10W			<IC>	
R1129	1-216-091-00	RES,CHIP	56K 5% 1/10W	IC601	1-809-086-12	IC CH-1018	
R1131	1-216-073-00	RES,CHIP	10K 5% 1/10W	IC651	8-759-908-15	IC TL431CLP	
R1132	1-216-073-00	RES,CHIP	10K 5% 1/10W				
R1133	1-216-073-00	RES,CHIP	10K 5% 1/10W			<COIL>	
R1134	1-216-091-00	RES,CHIP	56K 5% 1/10W				
		<VARIABLE RESISTOR>		L601	△ 1-424-616-11	L.F.T	
RV1101	1-241-763-11	RES, ADJ, CARBON 4.7K		L602	△ 1-424-574-11	L.F.T	
RV1102	1-241-762-11	RES, ADJ, CARBON 2.2K		L651	1-424-255-11	COIL, CHOCKE (MOLDE) 10μH	
				L652	1-424-615-21	COIL,CHOKE	
		<TRANSFORMER>					
T1101	1-404-584-11	COIL				<PHOTO COUPLER>	
				PH601	8-719-159-90	PHOTO COUPLER PS2652-P	
						<TRANSISTOR>	
				Q601	8-729-322-18	TRANSISTOR 2SK1402A	
						<RESISTOR>	
				R601	1-216-411-11	METAL OXIDE 1.5 5% 5W F	
				R602	1-216-411-11	METAL OXIDE 1.5 5% 5W F	
				R603	1-215-904-11	METAL OXIDE 100K 5% 2W F	
				R604	1-215-904-11	METAL OXIDE 100K 5% 2W F	
				R605	1-212-865-00	FUSIBLE 22 5% 1/4W F	
				R606	1-249-404-00	CARBON 82 5% 1/4W	
				R607	1-260-128-91	CARBON 270K 5% 1/2W	
				R608	1-260-128-91	CARBON 270K 5% 1/2W	
				R609	1-215-904-51	METAL OXIDE 100K 5% 2W F	
				R610	1-216-341-11	METAL OXIDE 0.22 10% 1/2W	
				R611	1-249-395-11	CARBON 15 5% 1/4W	
				R612	1-249-399-11	CARBON 33 5% 1/4W	
				R613	1-215-904-51	METAL OXIDE 100K 5% 2W F	
				R614	1-247-815-91	CARBON 220 5% 1/4W	
				R620	1-218-265-11	METAL GRAZE 8.2M 5% 1W	
				R651	1-215-886-11	METAL OXIDE 100 5% 2W F	
				R652	1-215-886-11	METAL OXIDE 100 5% 2W F	
				R653	1-260-107-11	CARBON 4.7K 5% 1/2W	
				R654	1-260-107-11	CARBON 4.7K 5% 1/2W	
				R655	1-249-435-11	CARBON 33K 5% 1/4W	

G BOARD (SOPS-1021)

4-812-134-11 RIVET,NYLON

<CAPACITOR>

C602	△ 1-136-889-11	FILM	0.22MF 20% 250V
C603	△ 1-161-741-51	CERAMIC	1000PF 10% 400V
C604	△ 1-161-741-51	CERAMIC	1000PF 10% 400V
C605	△ 1-161-741-51	CERAMIC	1000PF 10% 400V
C608	1-162-599-12	CERAMIC	4700PF 20% 400V
C609	1-162-599-12	CERAMIC	4700PF 20% 400V
C610	1-125-724-11	ELECT	100MF 20% 400V
C611	1-136-206-11	FILM	0.33MF 10% 630V
C612	1-107-909-11	ELECT	47MF 20% 50V
C613	1-136-169-00	FILM	0.22MF 5% 50V
C614	1-136-169-00	FILM	0.22MF 5% 50V
C615	1-130-471-00	FILM	0.001MF 5% 50V
C616	1-130-479-91	FILM	4700PF 5% 50V
C651	1-161-825-11	CERAMIC	220PF 10% 500V
C652	1-111-065-11	ELECT	680MF 20% 25V

Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
R656	1-249-435-11	CARBON	33K 5% 1/4W				
R657	1-249-420-11	CARBON	1.8K 5% 1/4W				
R658	1-249-435-11	CARBON	33K 5% 1/4W				
		<VARIABLE RESISTOR>					
RV651	△	RES,ADJ,CARBON 1K					
		<TRANSFORMER>					
T601	1-450-760-12	TRANSFORMER, CONVERTER					

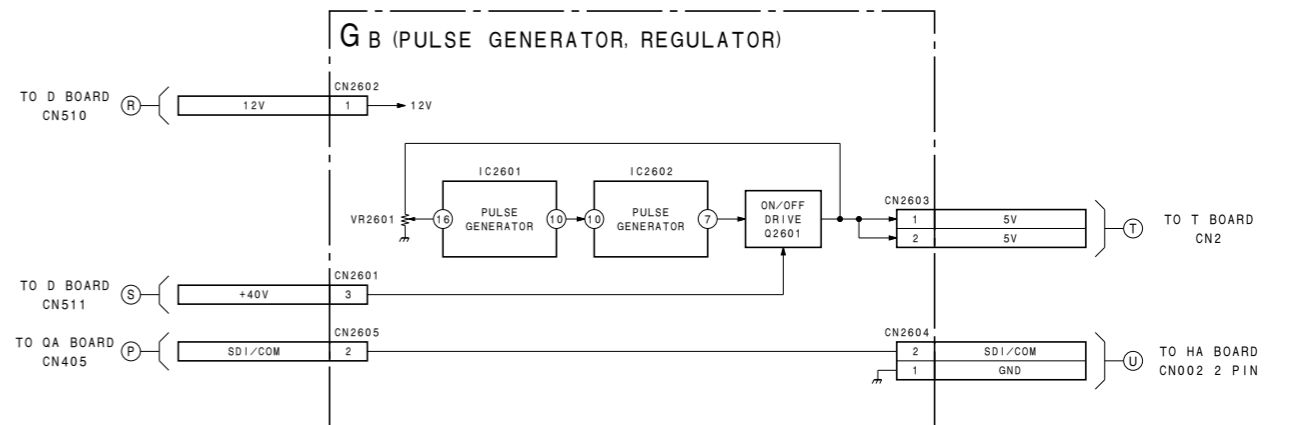
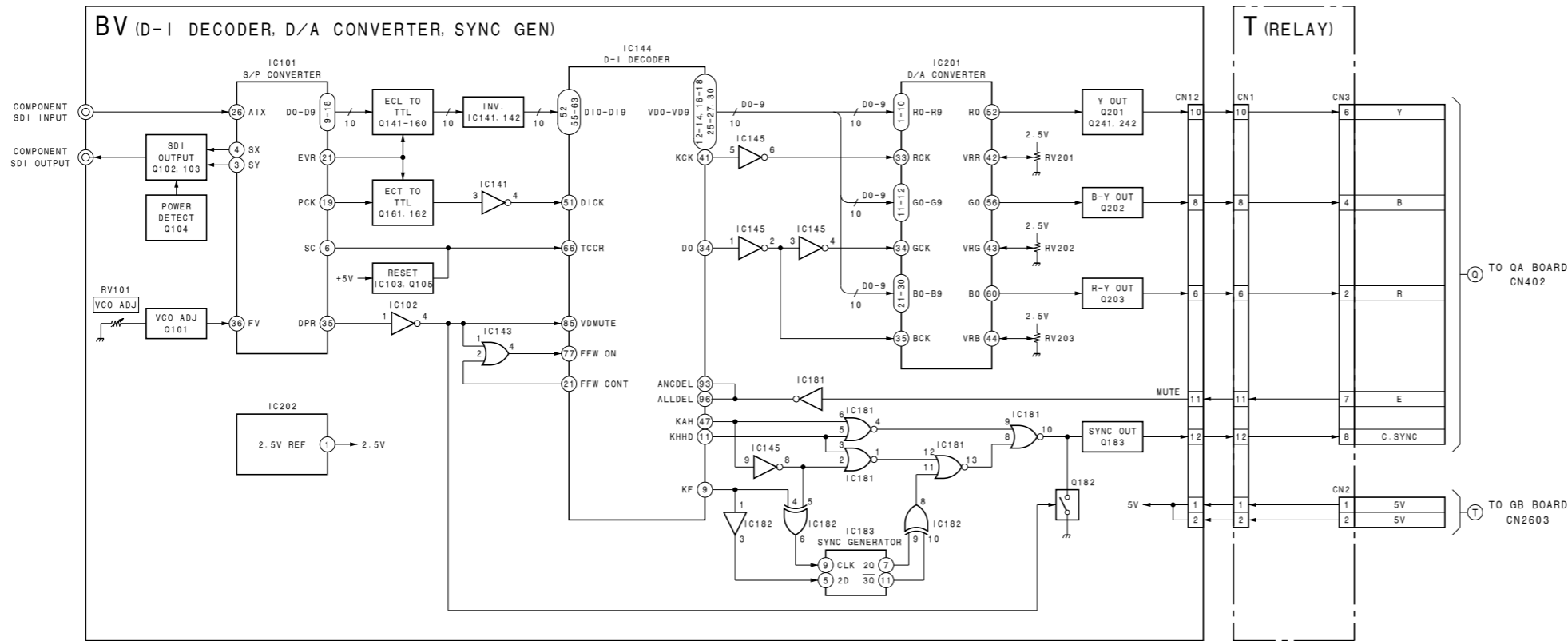
ACCESSORIES AND PACKING MATERIALS							

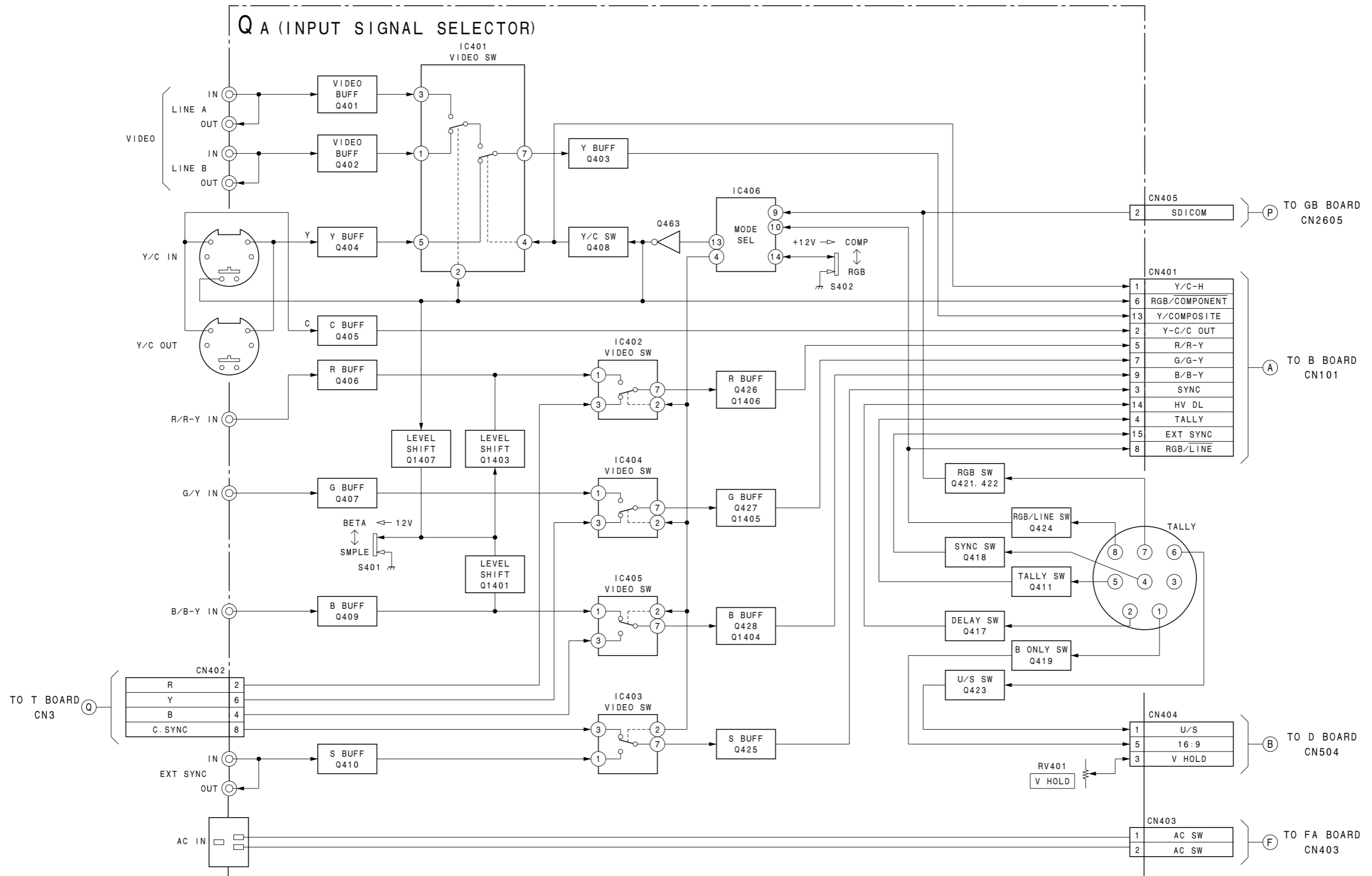
	1-690-871-11	CABLE (MINI DIN) 8P					
	2-990-241-02	HOLDER (A), PLUG					
	2-990-242-01	HOLDER (B), PLUG					
	3-865-374-01	MANUAL, INSTRUCTION					
		(JAPANESE, ENGLISH)					
	4-034-835-01	PLATE, TALLY					
	△1-782-929-11	CORD POWER SUPPLY (BS3P)					
		(125V/10A) (BVM-9045D)					
	△1-765-718-11	CORD SET, POWER (125V/10A)					
		(BVM-8045QD)					
	* 4-034-955-01	CUSHION (UPPER) (ASSY)					
	* 4-034-956-11	CUSHION (LOWER) (ASSY)					
	* 4-384-927-11	BAG, PROTECTION					

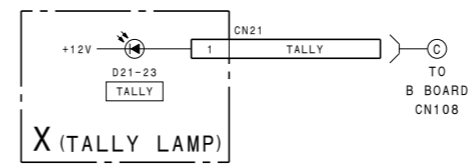
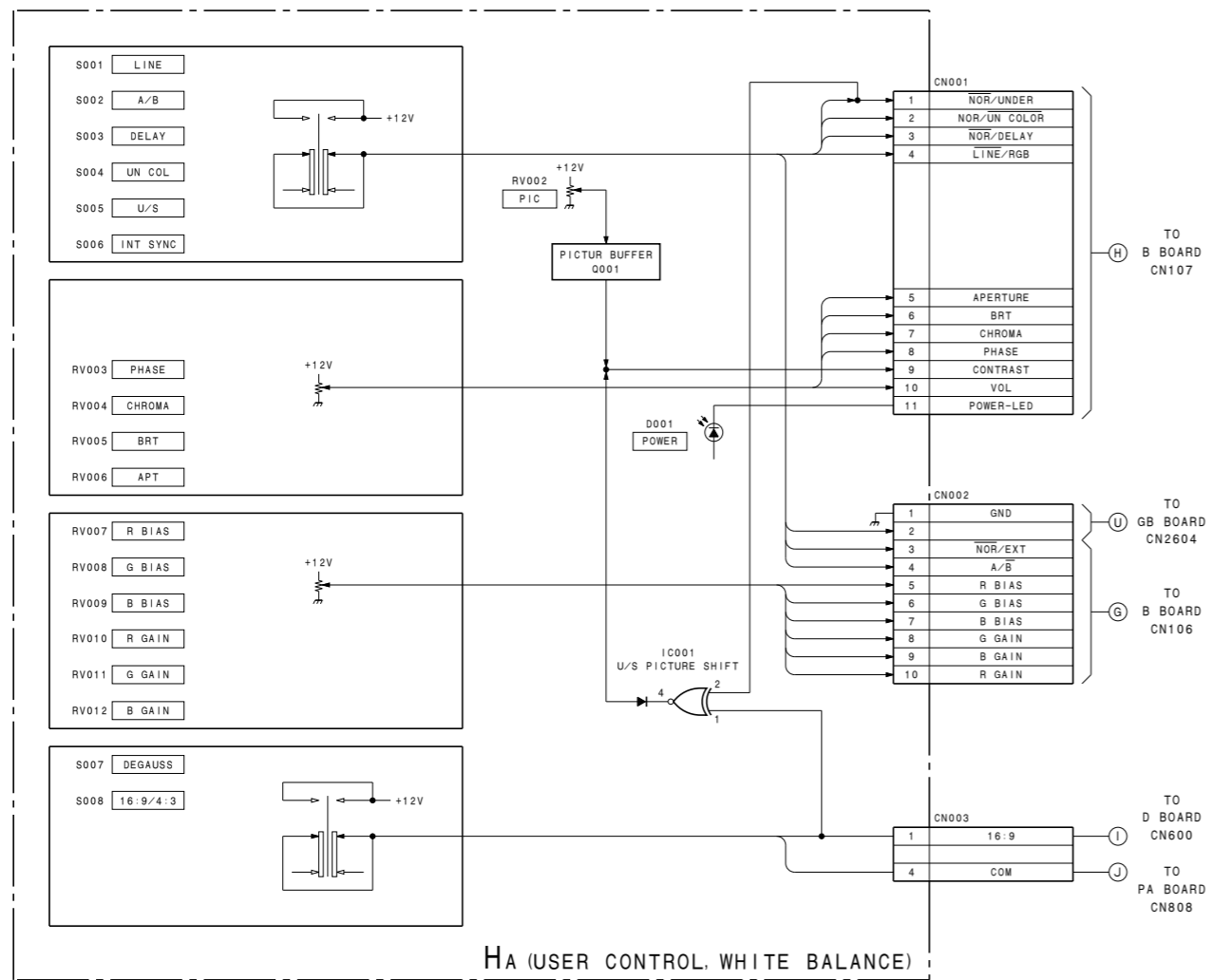
MISCELLANEOUS							

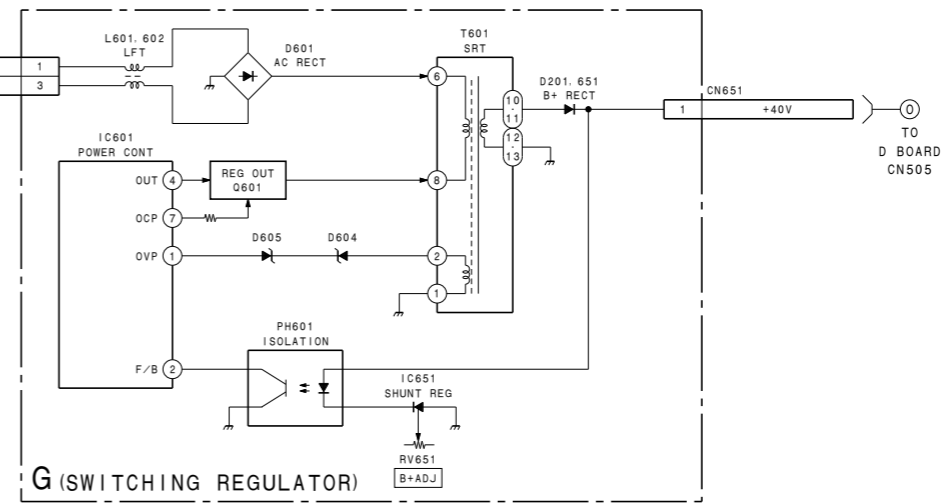
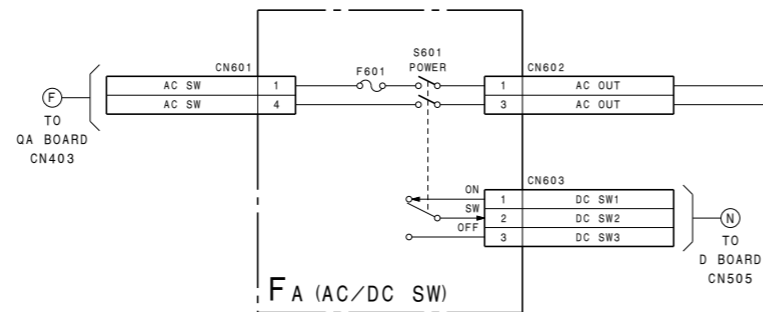
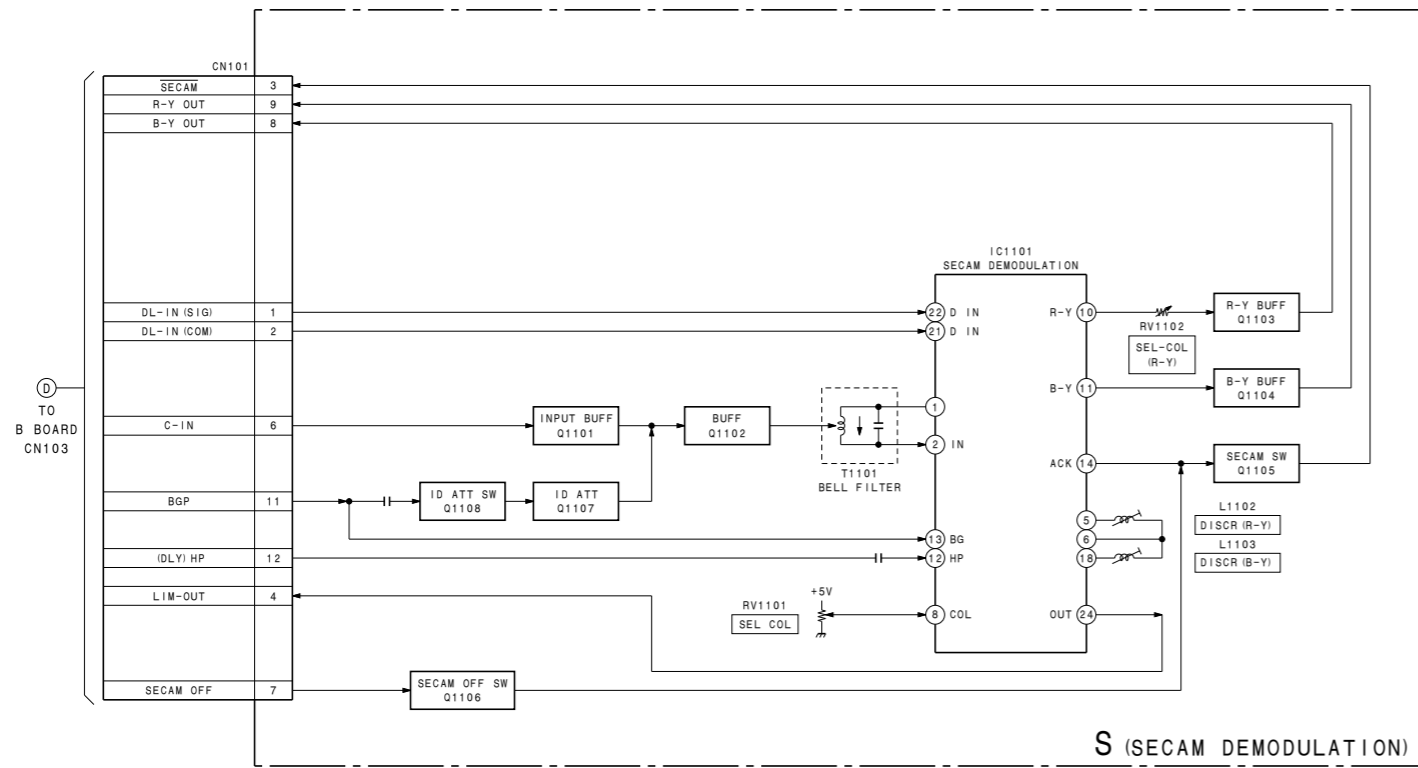
	△1-416-882-11	COIL, DEMAGNETIC					
	△1-413-720-21	SWITCHING REGULATOR (H.B.C.)					
	△1-532-747-11	FUSE, GLASS TUBE 5A/125V					
		(BVM-8045QD)					
	△1-576-232-11	FUSE (H.B.C.) 5A/250V (BVM-9045D)					
	△1-451-319-22	DEFLECTION YOKE (Y9FXC)					
	△8-737-651-05	PICTURE TUBE (09FX)					

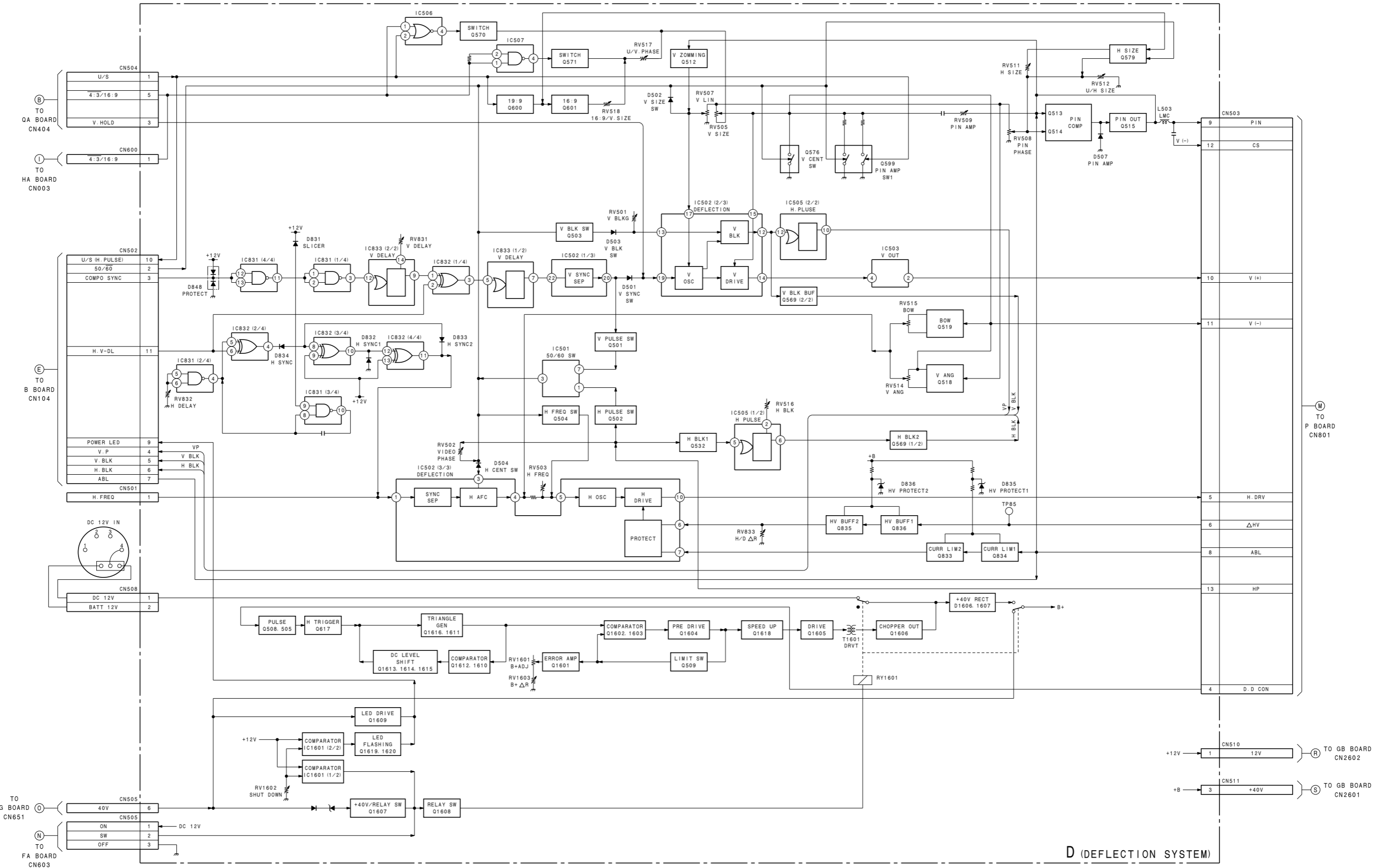
SECTION 9 BLOCK DIAGRAMS







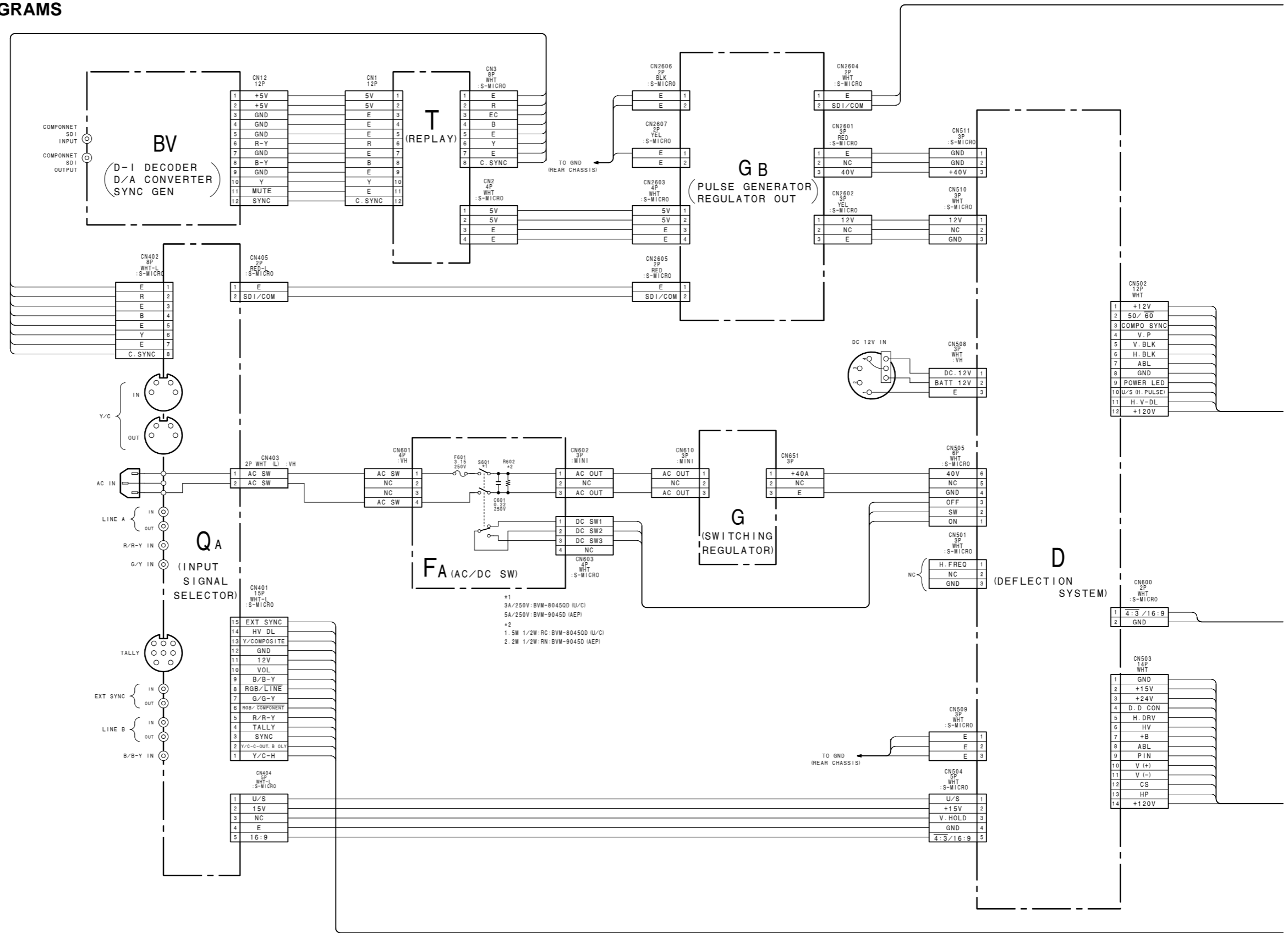




D (DEFLECTION SYSTEM)

SECTION 10
DIAGRAMS

10-1. FRAME SCHEMATIC DIAGRAMS



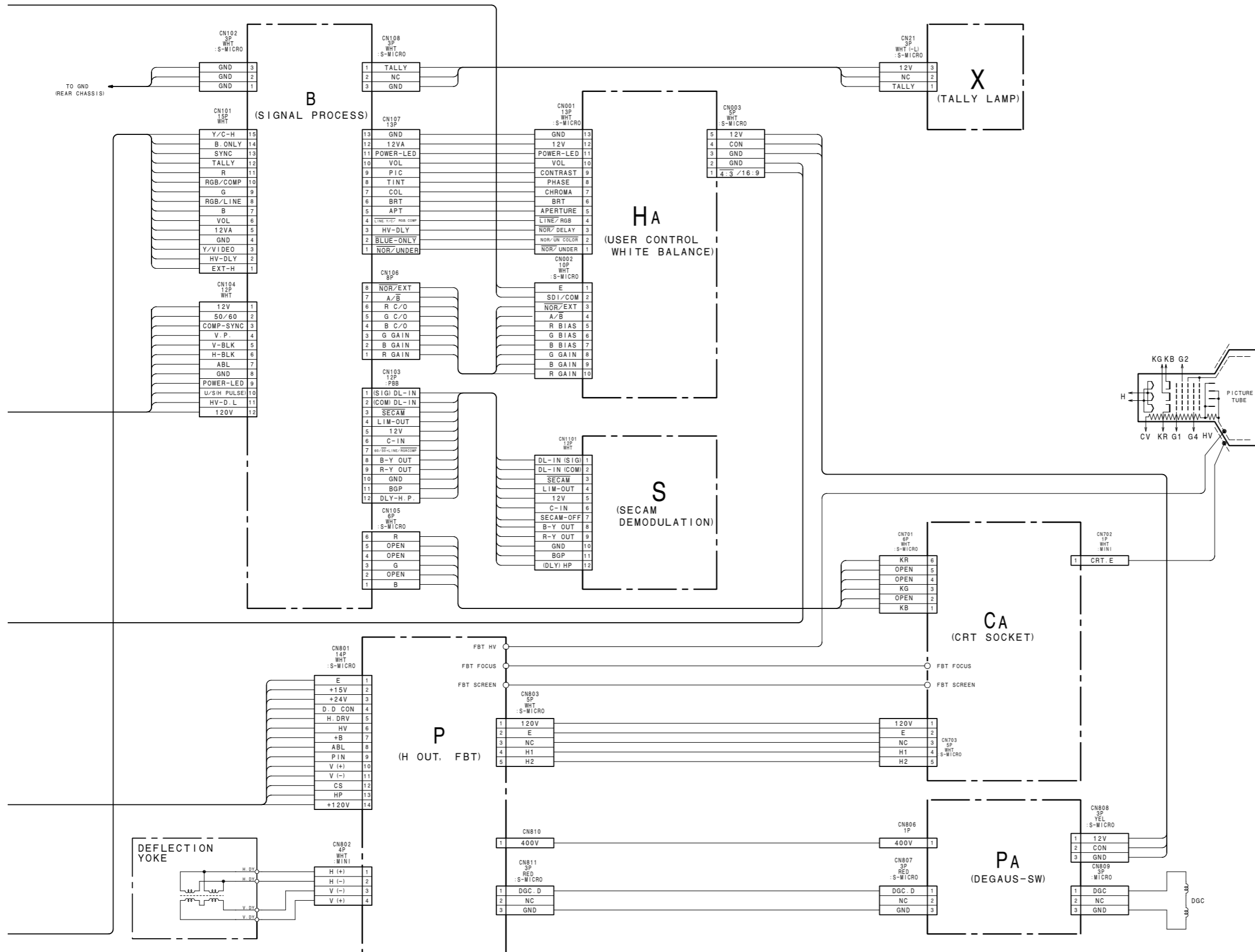
B-VS9614<U/C>-FRAME-L

10-2

10-2

S MIC Chassis

A B C D E F G H



B-VSV9614<U/C>-FRAME-R

1

2

3

4

5

10-2. SCHEMATIC DIAGRAMS/PRINTED WIRING BOARDS

Note:

- All capacitors are in μF unless otherwise noted. PF: 50 WV or less are not indicated except for electrolytics.
- All electrolytics are in 50 V unless otherwise specified.
- All resistors are in ohms, 1/4 W in resistance, 1/10 W in chip resistance. $k\Omega = 100$, $M\Omega = 1000 k\Omega$
- : nonflammable resistor.
- : internal component.
- : panel designation, or adjustment for repair.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- The "4-1. +B Voltage Check" and "4-2. Protection Circuit (Hold-down circuit) Check" should always be performed when replacing the following components (marked on the schematic diagram).

The components identified by mark Δ are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

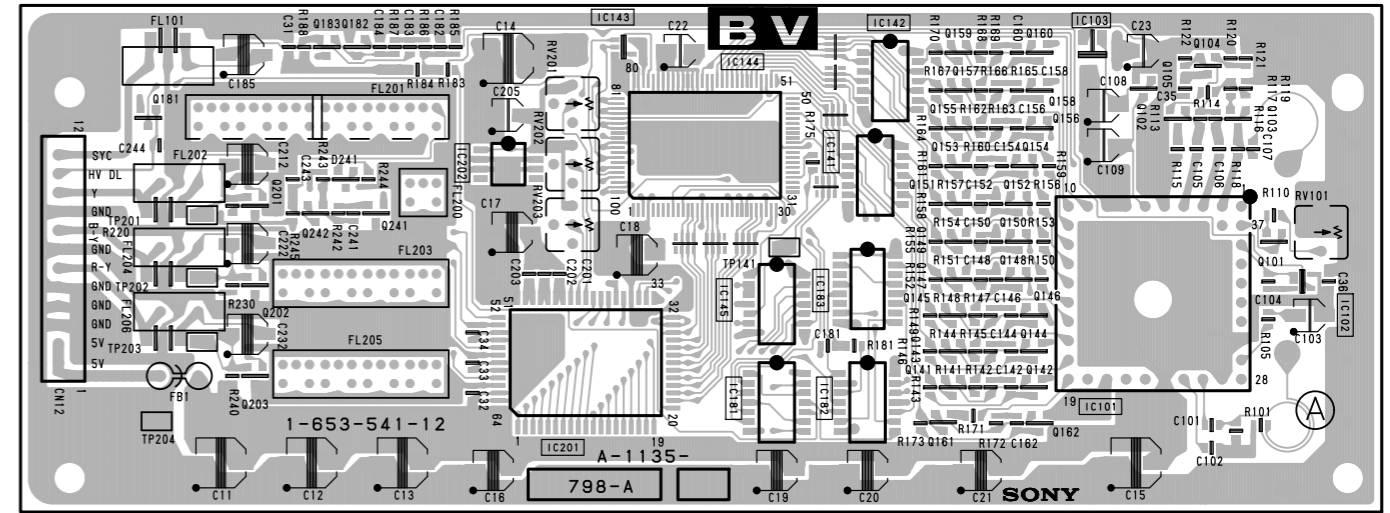
Reference information

- RESISTOR : RN METAL FILM
 : RC SOLID
 : FPRD NONFLAMMABLE CARBON
 : FUSE NONFLAMMABLE FUSIBLE
 : RS NONFLAMMABLE METAL OXIDE
 : RB NONFLAMMABLE CEMENT
 : RW NONFLAMMABLE WIREWOUND
- COIL : LF-8L MICRO INDUCTOR
- CAPACITOR : TA TANTALUM
 : PS STYROL
 : PP POLYPROPYLENE
 : PT MYLAR
 : MPS METALIZED POLYESTER
 : MPP METALIZED POLYPROPYLENE
 : ALB BIPOLAR
 : ALT HIGH TEMPERATURE
 : ALR HIGH RIPPLE

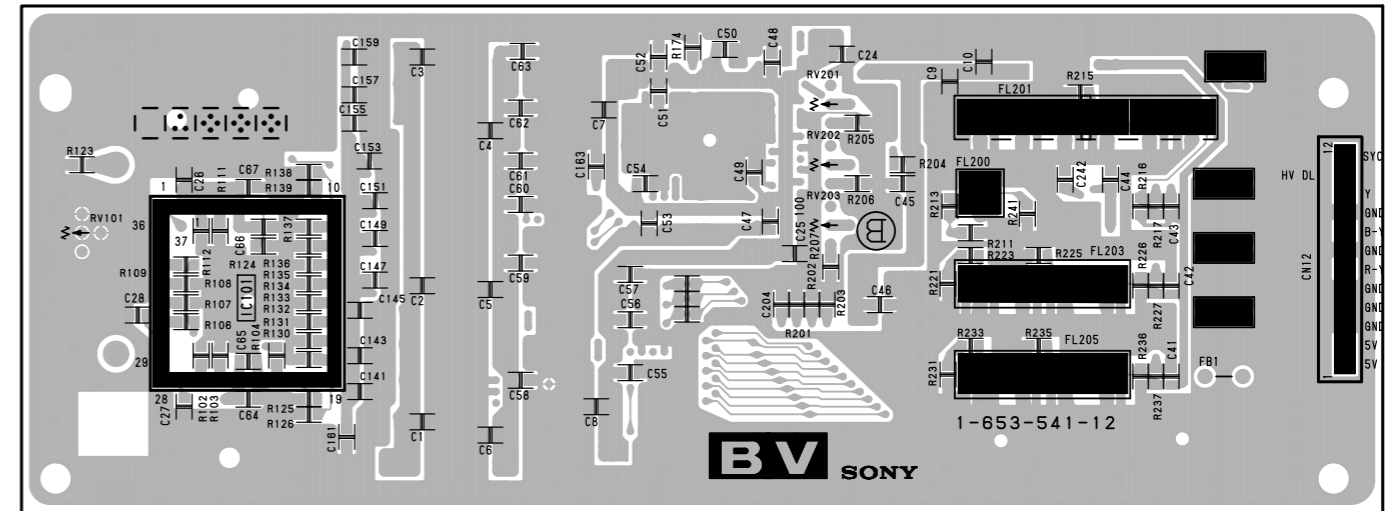
Board	Parts	Parts
D	C519, C843, C844, C845, C846, C847, C848, C1601, C1602, D835, D836, D1601, D1603, IC502, Q833, Q834, Q835, Q836, Q1601, Q1602, Q1603, R523, R850, R851, R852, R853, R854, R855, R856, R857, R858, R859, R860, R861, R862, R863, R1601, R1602, R1603, R1604, R1605, R1606, R1607, R1608, R1628, R1629, R1630, RV833, RV1603	RV833, RV1603
G	C654, IC601, IC651, PH601, R653, R655, R656, R657, RV651	RV651
P	C814, NL801, T802 (FBT)	

- Readings are taken with a color-bar signal input. no mark : With PAL color-bar signal received or common voltage. () : With SECAM color-bar signal received. < > : With NTSC (3.58, 4.43) color-bar signal received.
- Readings are taken with a 10 M Ω digital multimeter.
- Voltage are dc with respect to ground unless otherwise noted.
- Voltage variations may be noted due to normal production tolerances.
- All voltages are in V.
- Circled numbers are waveform reference.
- : B+ bus.
- : B- bus.
- : signal path.
- * : Measurement impossibility.

BV BOARD

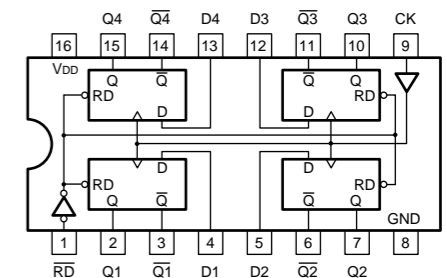


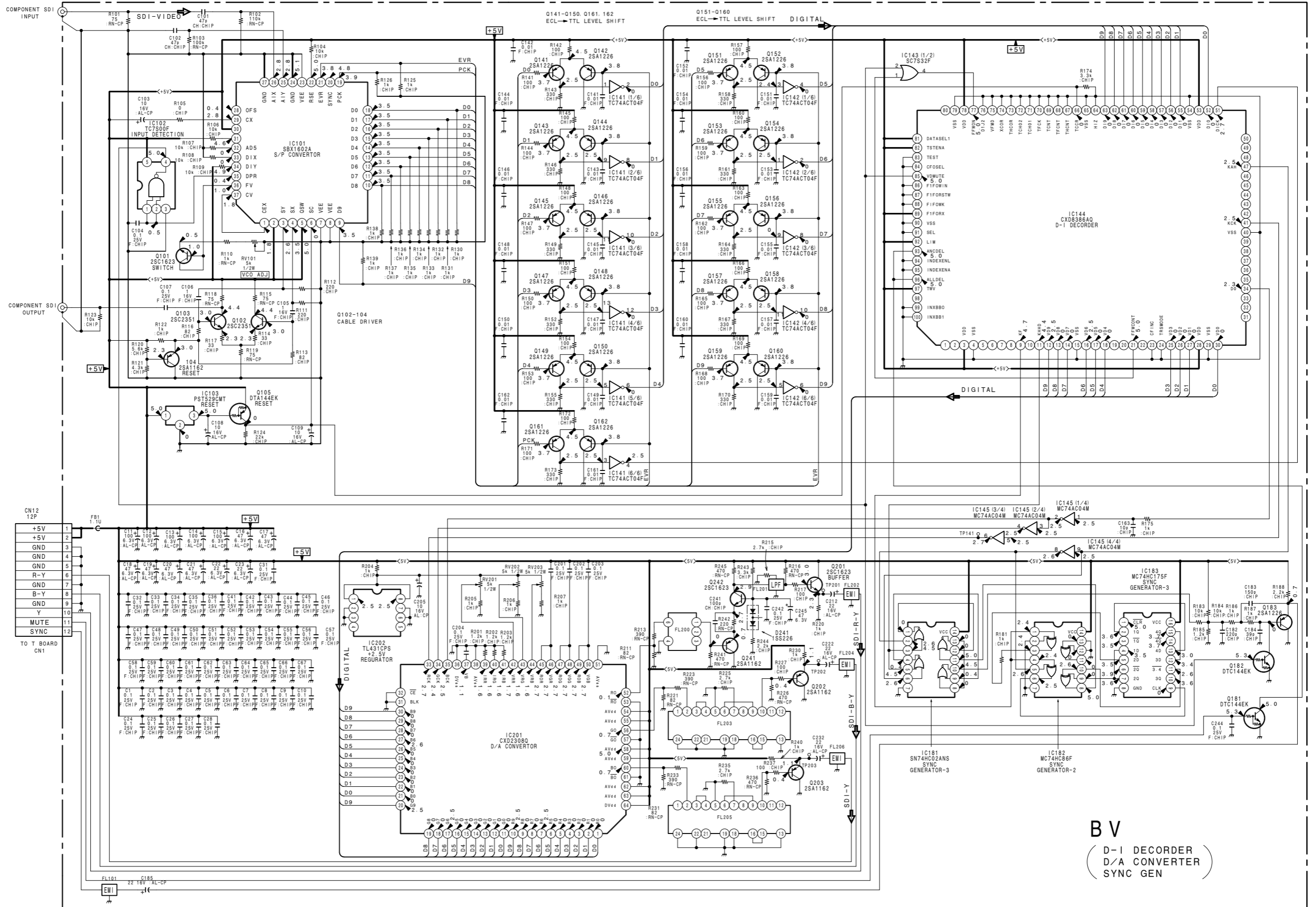
BV -A SIDE- SUFFIX: -12



BV -B SIDE- SUFFIX: -12

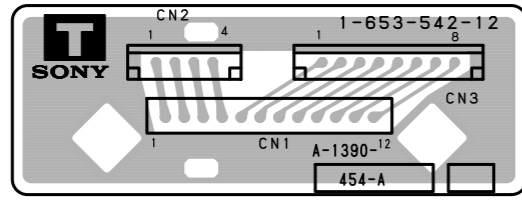
BV BOARD IC183 MC74HC175F



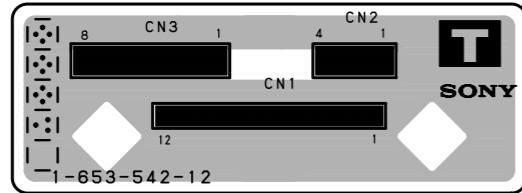


BV
 (D-1 DECODER
 D/A CONVERTER
 SYNC GEN)

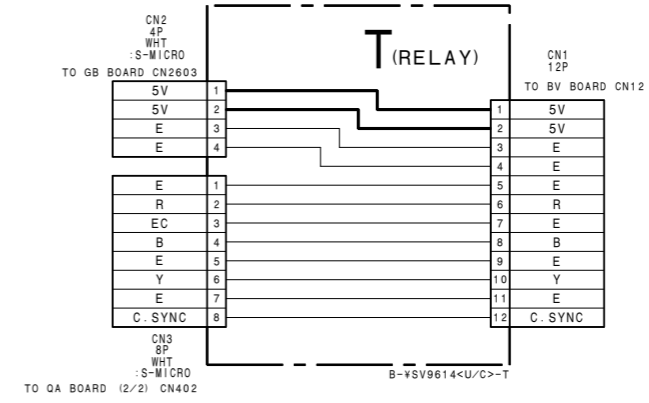
T BOARD



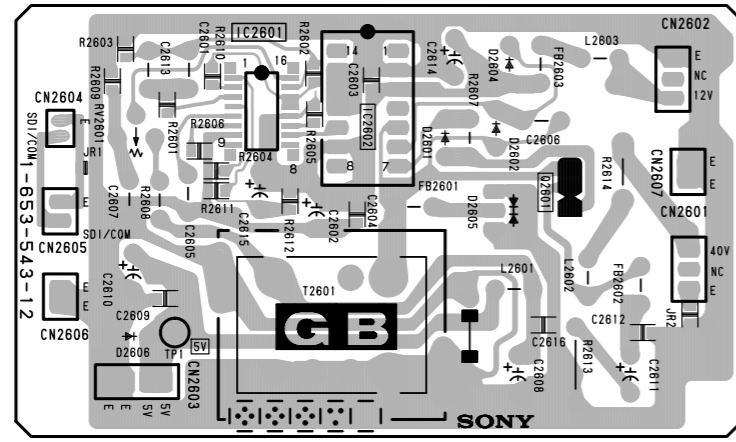
T -A SIDE-
SUFFIX: -12



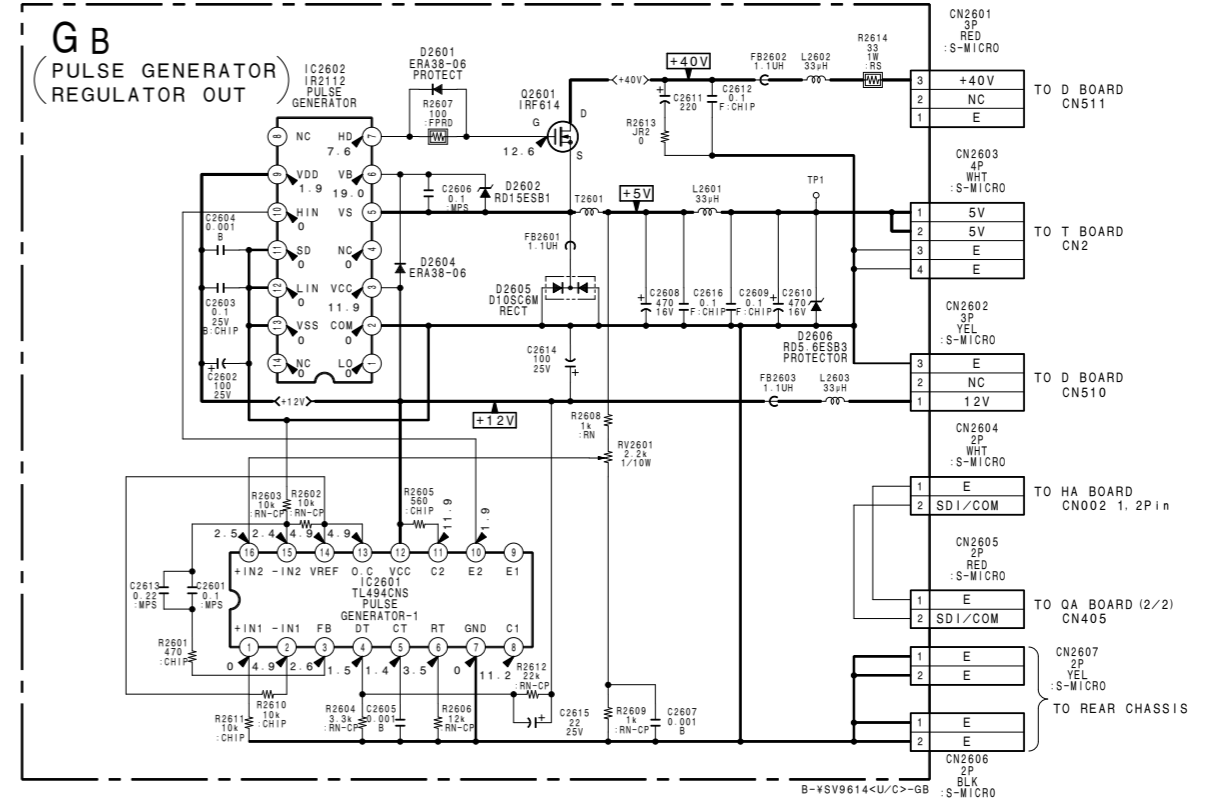
T -B SIDE-
SUFFIX: -12



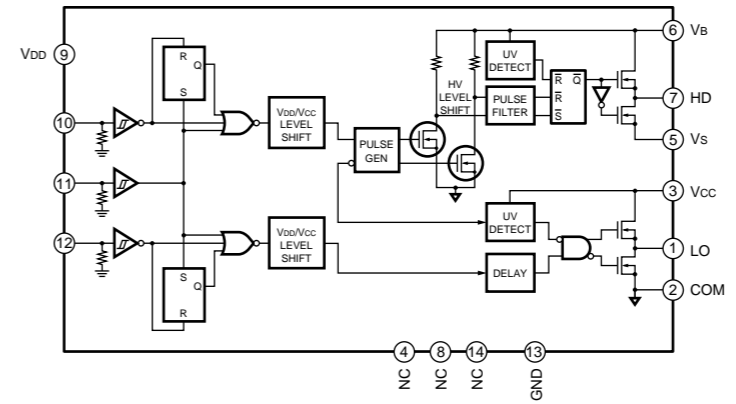
GB BOARD



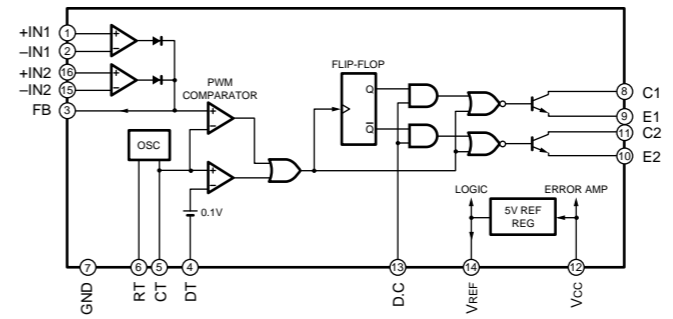
GB -A SIDE-
SUFFIX: -12

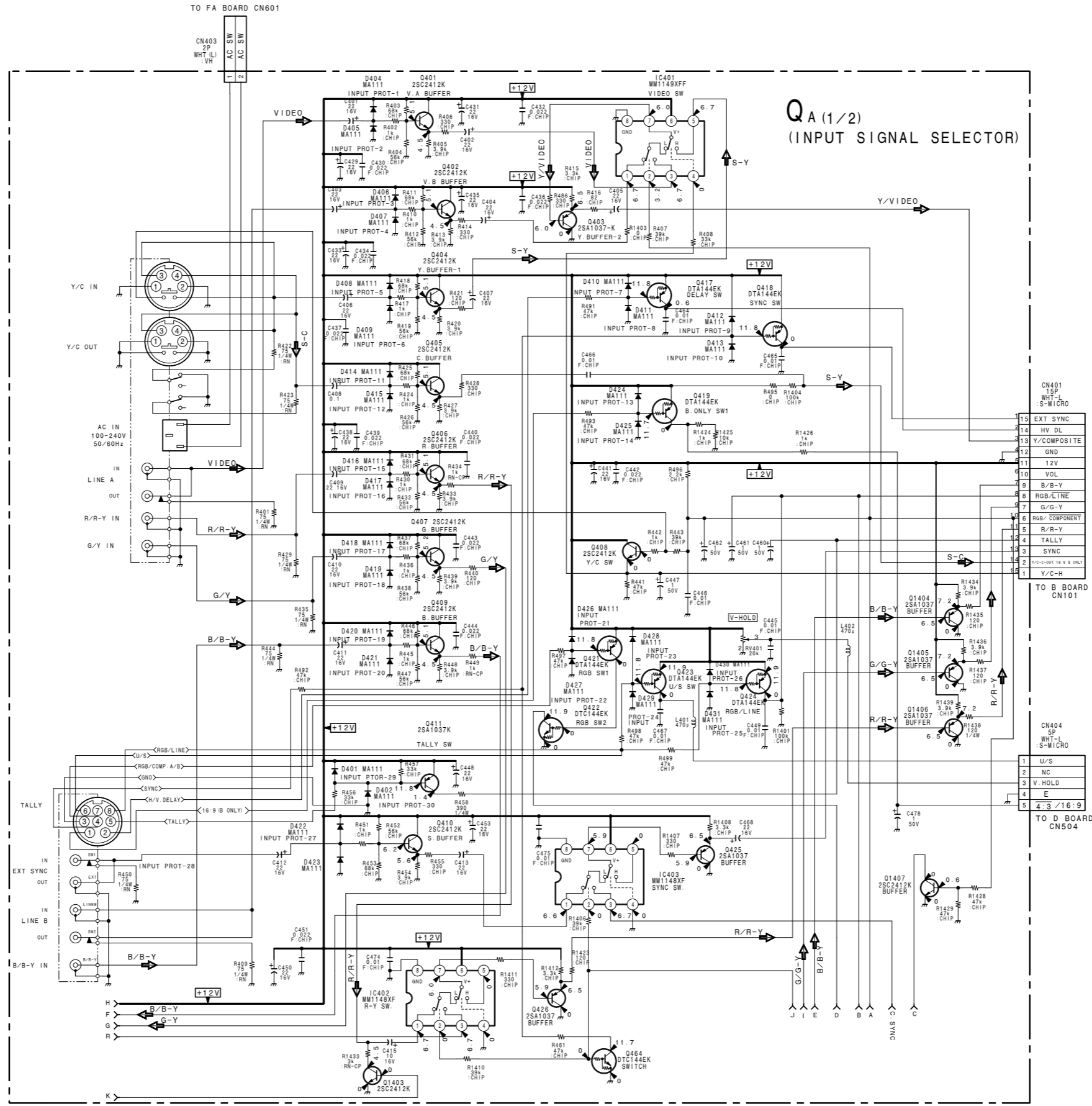


GB BOARD IC2602 IR2112



GB BOARD IC2601 TL494CNS





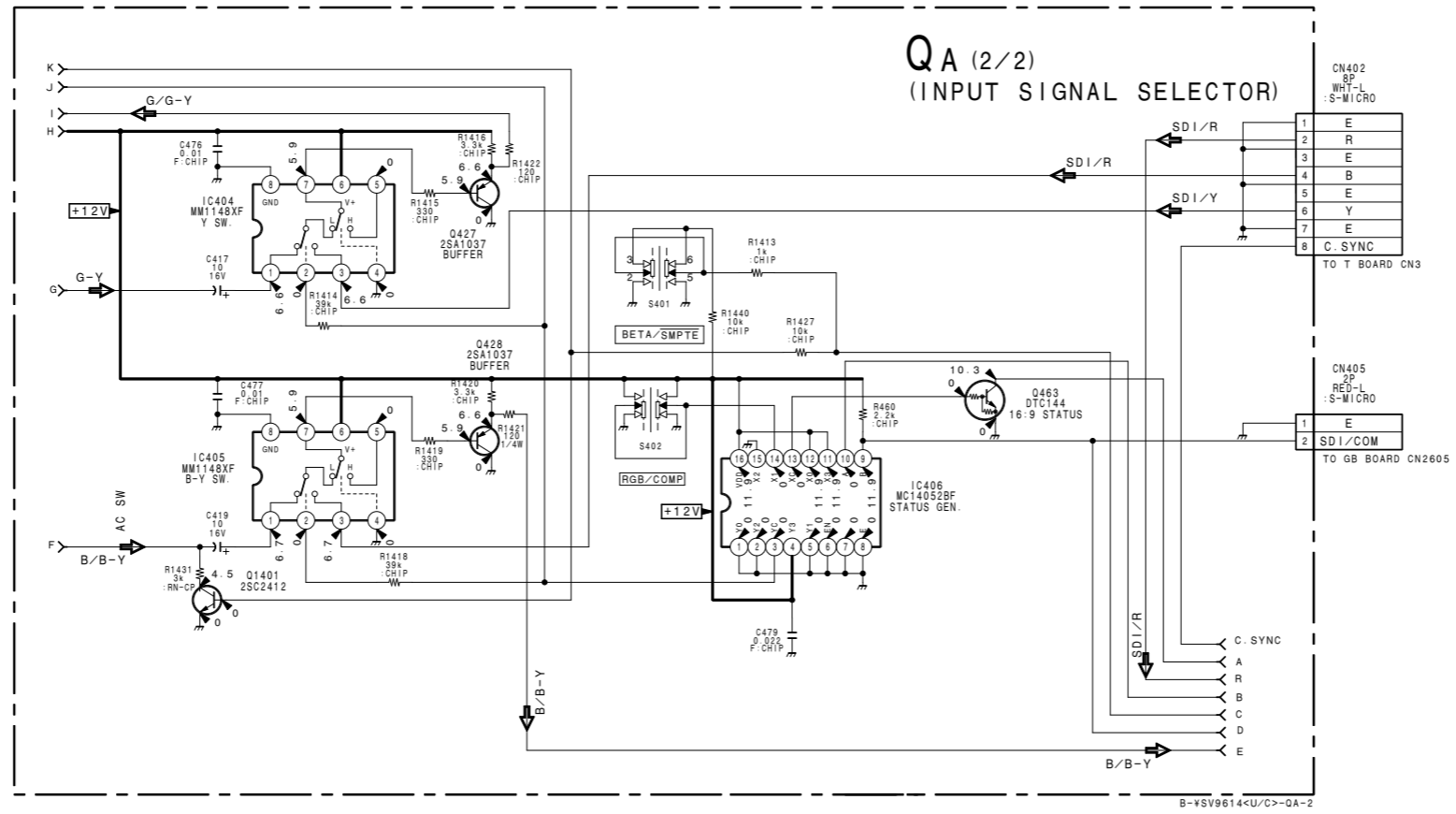
QA (1/2)
(INPUT SIGNAL SELECTOR)

15	EXT SYNC
14	HV DL
13	Y/COMPOSITE
12	GND
11	12V
10	VOL
9	B/B-Y
8	RGB/LINE
7	G/G-Y
6	RGB/COMPONENT
5	R/R-Y
4	TALLY
3	SYNC
2	Y/C-OUT 16:9 ONLY
1	Y/C-H

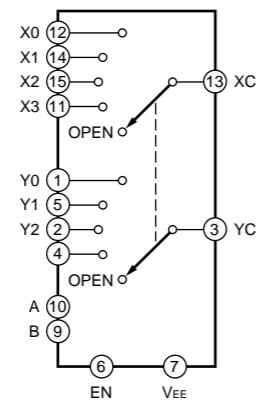
TO B BOARD CN101	
7	2
6	5
5	4
4	3
3	2
2	1
1	0

TO D BOARD CN504	
1	U/S
2	NC
3	V HOLD
4	E
5	4:3/16:9

B-VS9614<U/C>-QA-1



QA BOARD IC406 MC14052BF



1

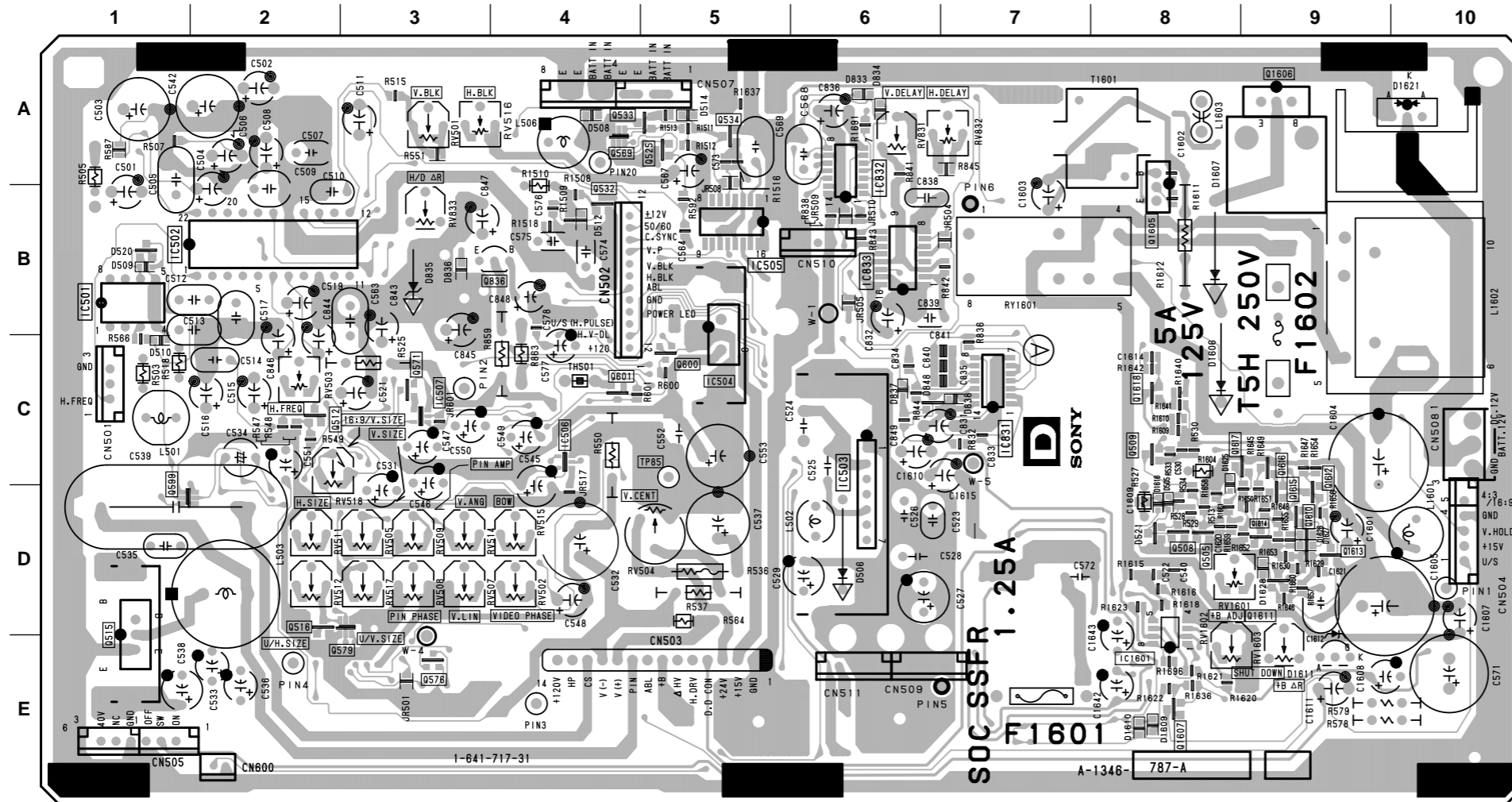
2

3

4

5

D BOARD



D -A SIDE-
SUFFIX: -31

D BOARD (A SIDE)

- IC501 B-1
- IC502 B-1
- IC503 C-6
- IC505 B-5
- IC506 C-4
- IC507 C-3
- IC831 C-7
- IC832 A-6
- IC833 B-6
- IC1601 E-8

- Q505 D-8
- Q508 D-8
- Q509 C-8
- Q512 C-2
- Q515 D-1
- Q516 D-2
- Q532 B-4
- Q533 A-4
- Q534 A-5
- Q569 A-4
- Q571 C-3
- Q576 E-3
- Q579 E-3
- Q525 A-5
- Q599 D-1
- Q600 C-5
- Q601 C-4
- Q836 B-4
- Q1604 C-2
- Q1605 B-8
- Q1606 A-9
- Q1607 E-8
- Q1610 D-9
- Q1611 D-9
- Q1612 C-9
- Q1613 D-9
- Q1614 D-9
- Q1615 D-9
- Q1616 C-9
- Q1617 C-8
- Q1618 C-8

- D506 D-5
- D508 A-4
- D509 B-1
- D510 C-1
- D514 A-5
- D520 B-1
- D521 D-8
- D833 A-6
- D834 A-6
- D835 B-3
- D836 B-3
- D837 C-6
- D838 C-7
- D1606 C-8
- D1607 A-8
- D1609 E-8
- D1611 E-9
- D1616 D-8
- D1621 A-10
- D1625 C-8
- D1626 D-9
- D1627 D-9
- D1628 D-9

- RV501 A-3
- RV502 D-4
- RV503 C-2
- RV504 D-5
- RV505 D-3
- RV507 D-4
- RV508 D-3
- RV509 D-3
- RV511 D-2
- RV512 D-2
- RV514 D-4
- RV515 D-4
- RV516 A-4
- RV517 D-3
- RV518 C-2
- RV831 A-6
- RV832 A-7
- RV833 B-3
- RV1601 D-8
- RV1602 E-8
- RV1603 E-9

D BOARD (B SIDE)

- IC501 B-10
- IC502 B-9
- IC503 C-5
- IC504 C-6

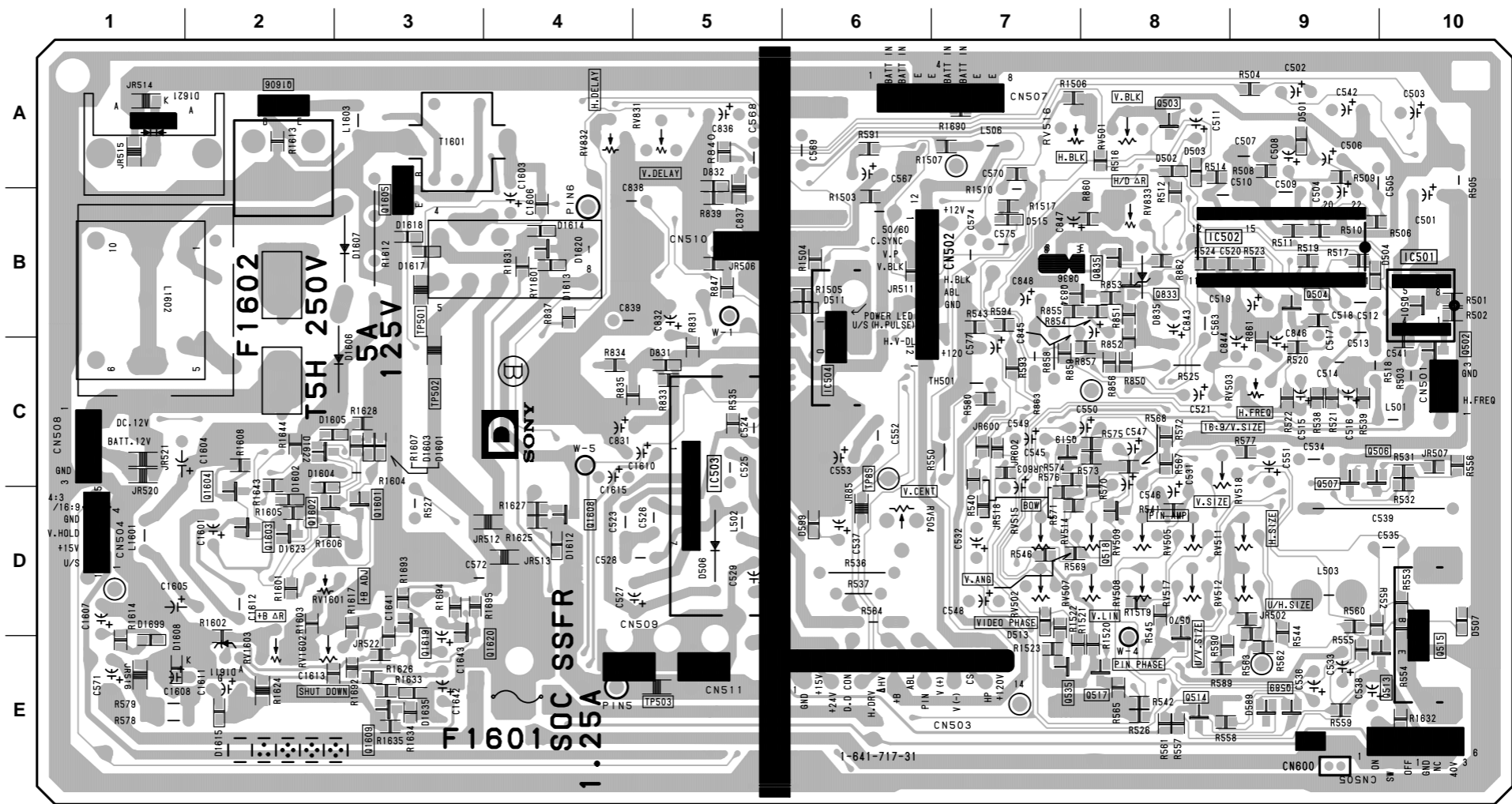
- Q501 B-10
- Q502 C-10
- Q503 A-8
- Q504 B-9
- Q506 C-9
- Q515 E-10
- Q507 C-9
- Q513 E-10
- Q514 E-8
- Q517 E-8
- Q518 D-8
- Q519 C-7
- Q535 E-8
- Q570 D-8
- Q589 E-9
- Q833 B-8
- Q835 B-8
- Q836 B-7
- Q1601 D-3
- Q1602 D-2
- Q1603 D-2
- Q1605 B-3
- Q1606 A-2
- Q1608 D-4
- Q1609 E-3
- Q1619 E-3
- Q1620 E-4

- D501 A-9
- D502 A-8
- D503 A-8
- D504 B-9
- D505 D-8
- D507 D-7
- D511 B-6
- D512 B-4
- D513 D-7
- D515 B-7
- D589 E-9
- D599 D-6
- D831 C-5
- D832 A-5
- D835 B-8
- D1601 C-3
- D1602 D-2
- D1603 C-3
- D1604 C-2
- D1605 C-2
- D1608 E-1
- D1610 E-8
- D1611 E-2
- D1612 D-4
- D1613 B-4
- D1614 B-4
- D1615 E-2
- D1617 B-3
- D1618 B-3
- D1620 B-4
- D1621 A-2
- D1622 C-2
- D1623 D-2
- D1635 E-3
- D1699 E-1

- RV501 A-8
- RV502 D-7
- RV503 C-8
- RV504 D-6
- RV505 D-8
- RV507 D-7
- RV508 D-8
- RV509 D-8
- RV511 D-8
- RV512 D-8
- RV514 D-7
- RV515 D-7
- RV516 A-7
- RV517 D-8
- RV518 C-8
- RV831 A-5
- RV832 A-4
- RV833 B-8
- RV1601 D-2
- RV1602 E-2
- RV1603 E-2

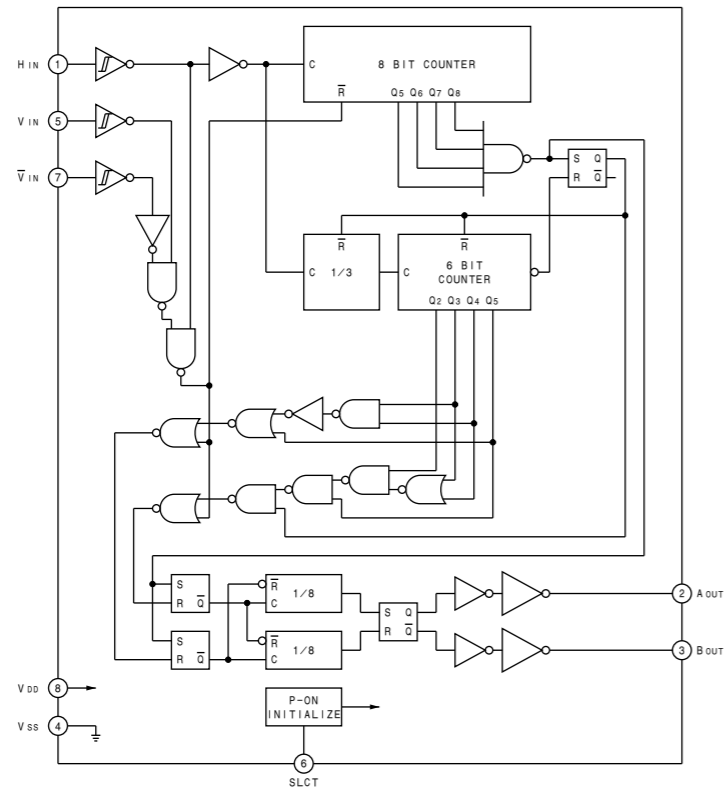
- TP501 B-3
- TP502 C-3
- TP503 E-5

D BOARD

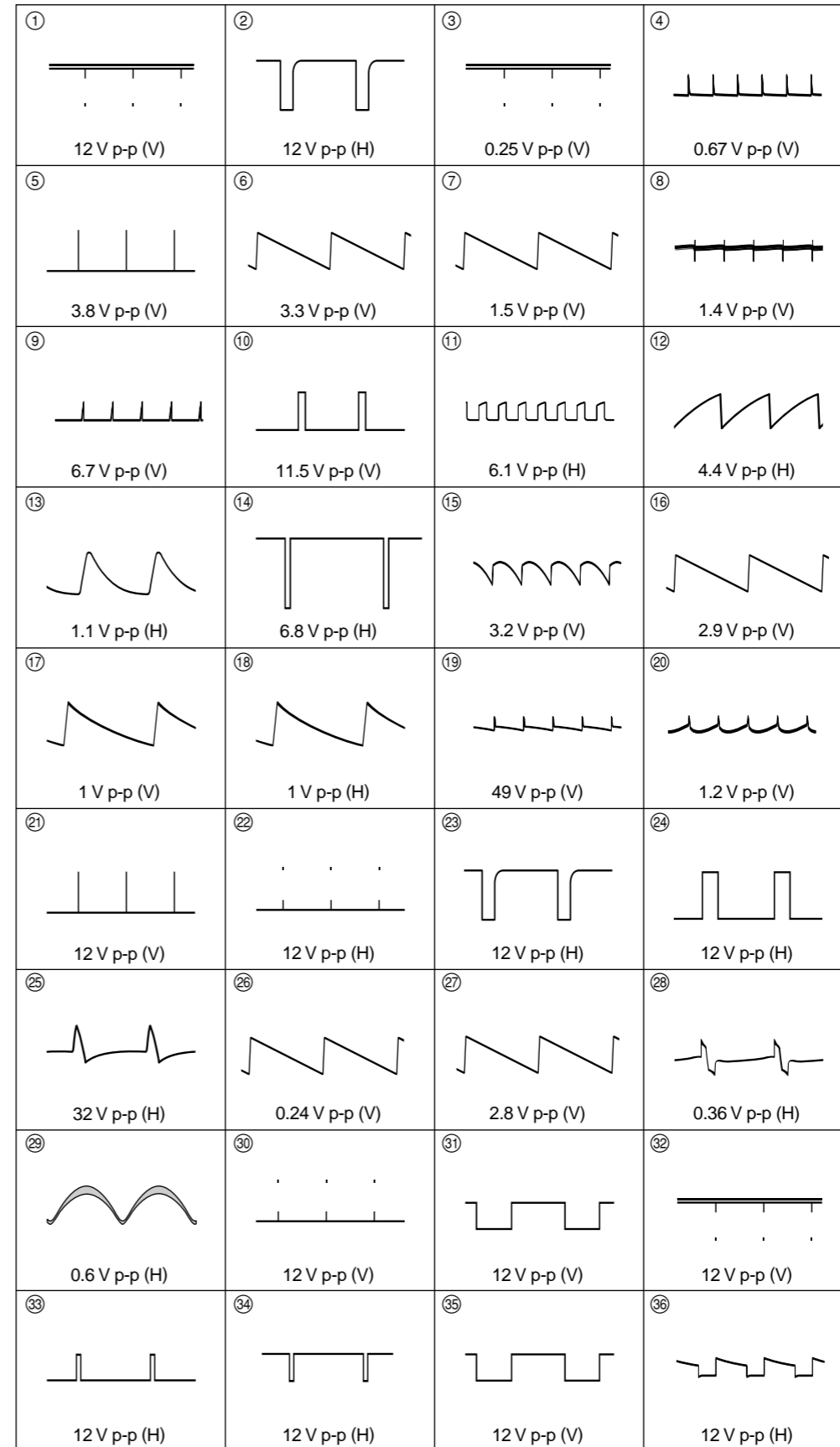


D -B SIDE-
SUFFIX: -31

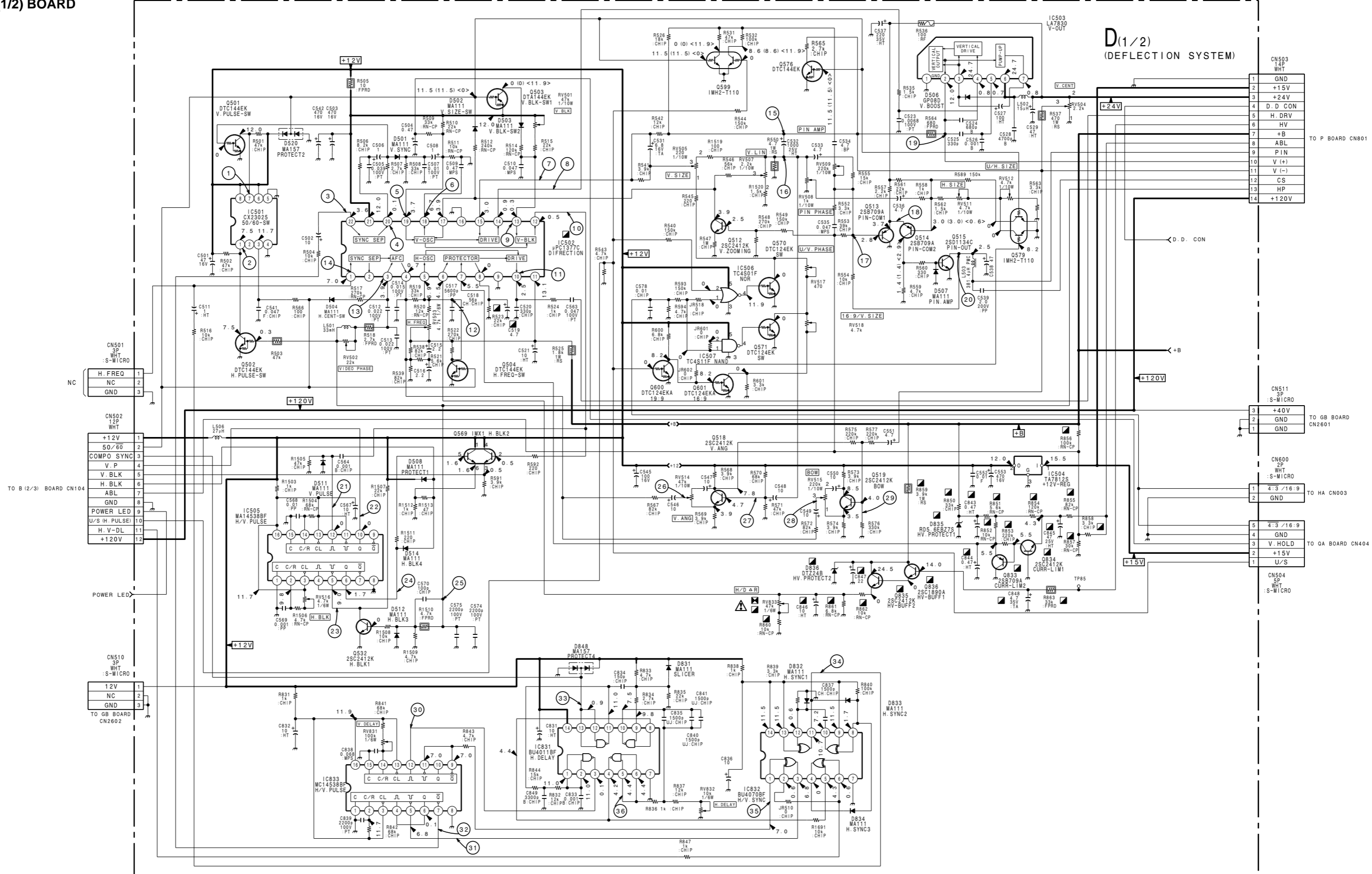
D (1/2) BOARD IC501 CX23025



D (1/2) BOARD WAVEFORMS



D (1/2) BOARD



D (1/2) (DEFLECTION SYSTEM)

1	GND
2	+15V
3	+24V
4	D. D. CON
5	H. DRV
6	HV
7	+B
8	ABL
9	PIN
10	V (+)
11	V (-)
12	CS
13	HP
14	+120V

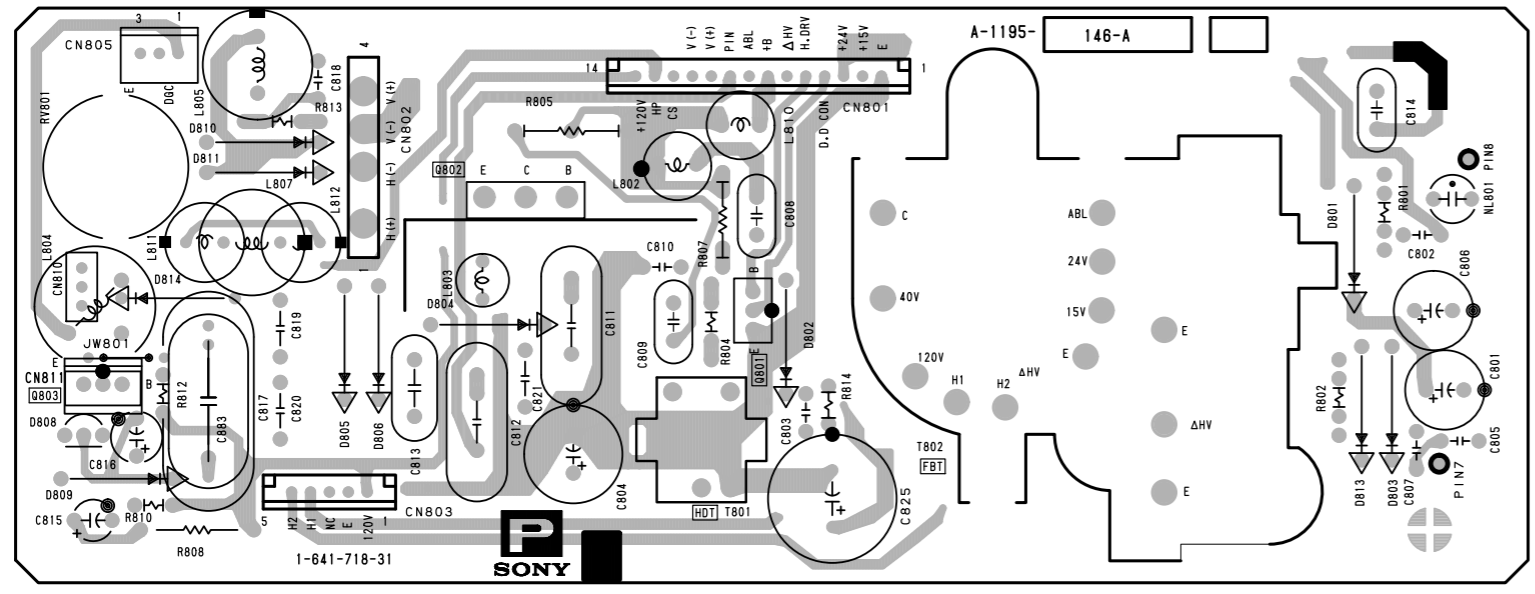
3	+40V
2	GND
1	GND

1	4.3 / 16.9
2	GND

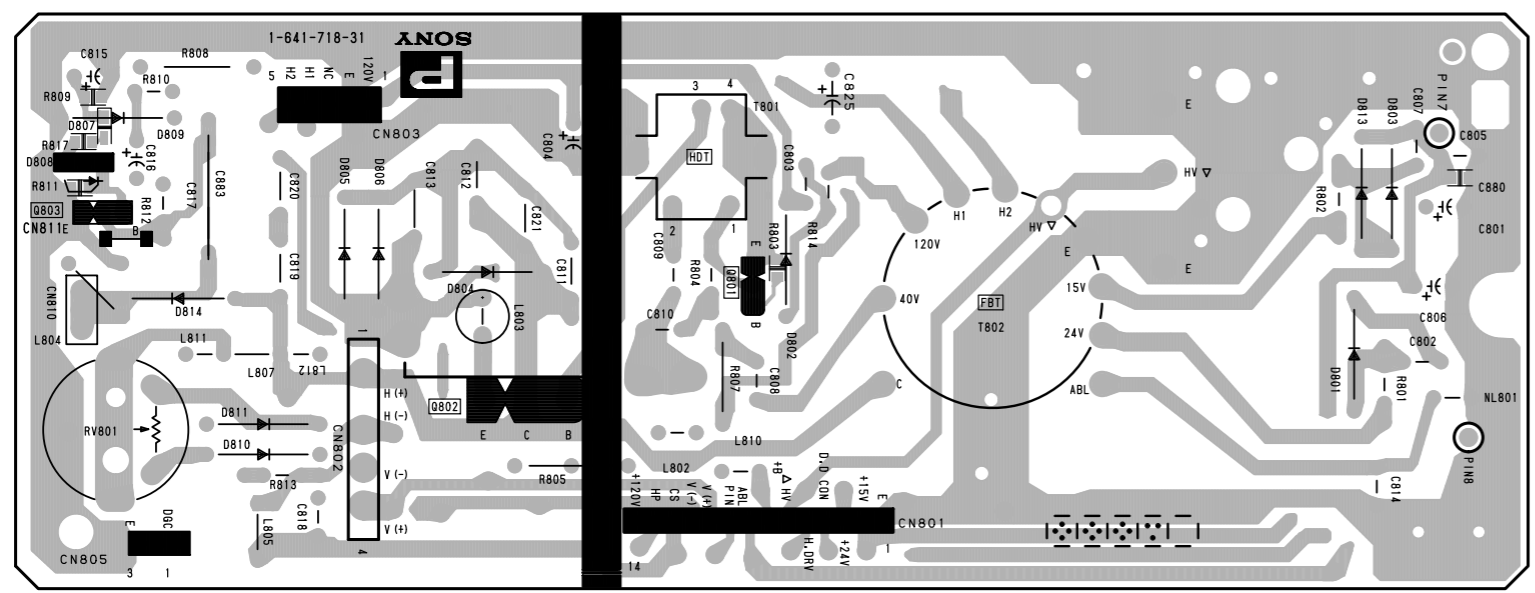
5	4.3 / 16.9
4	GND
3	V. HOLD
2	+15V
1	U/S

B-VS9614U/C>-D-1

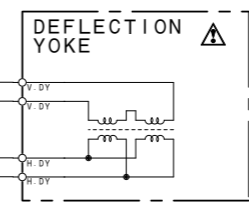
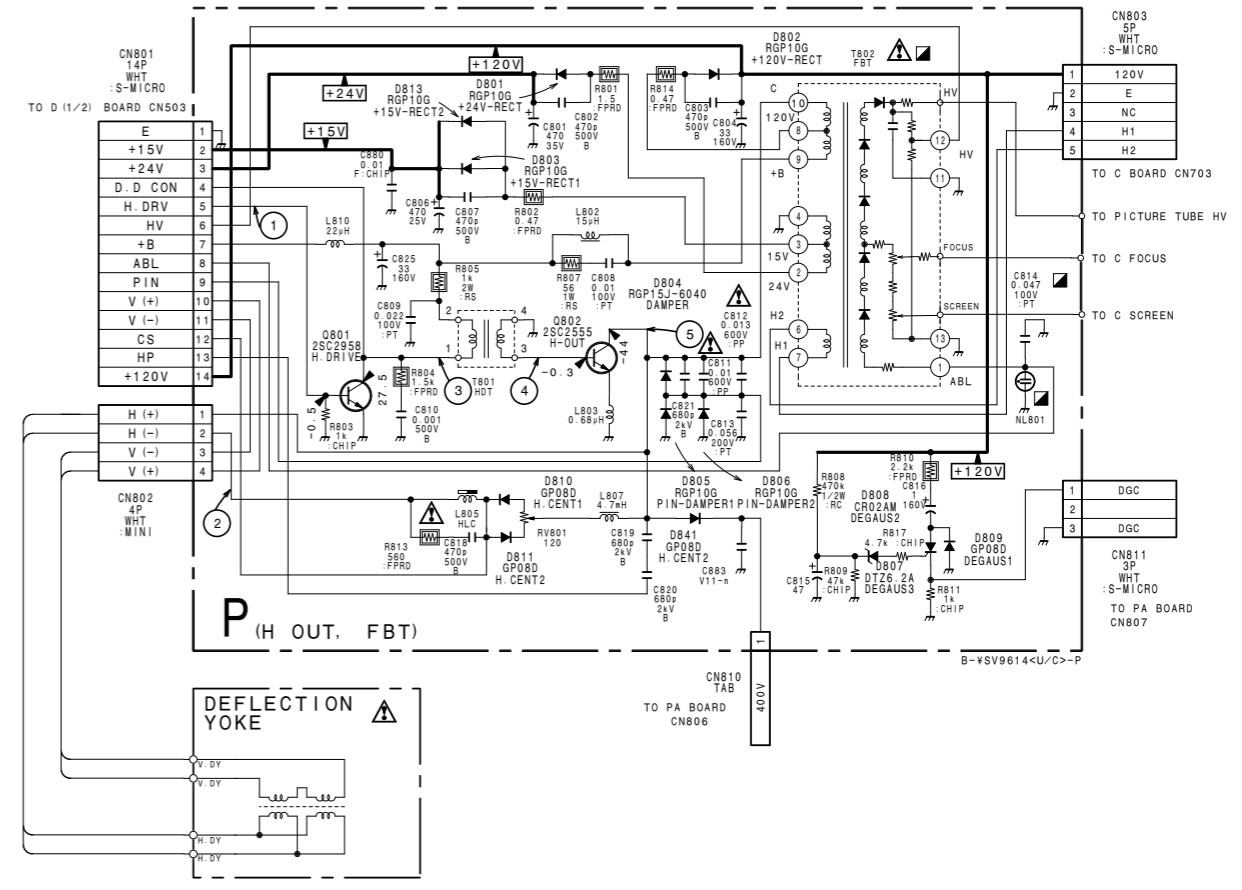
P BOARD



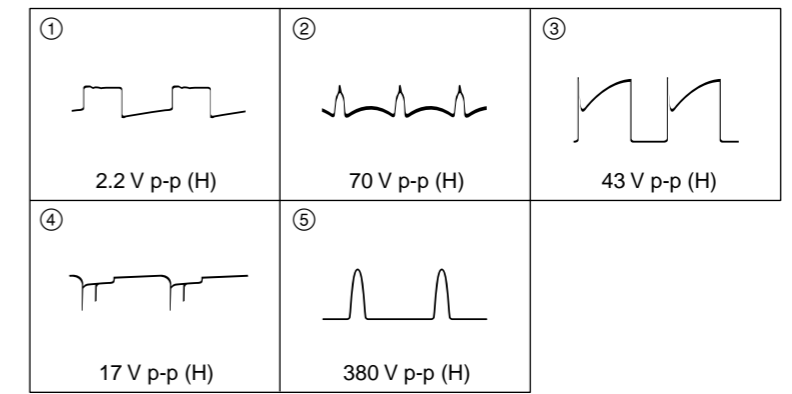
P -A SIDE- SUFFIX: -31



P -B SIDE- SUFFIX: -31

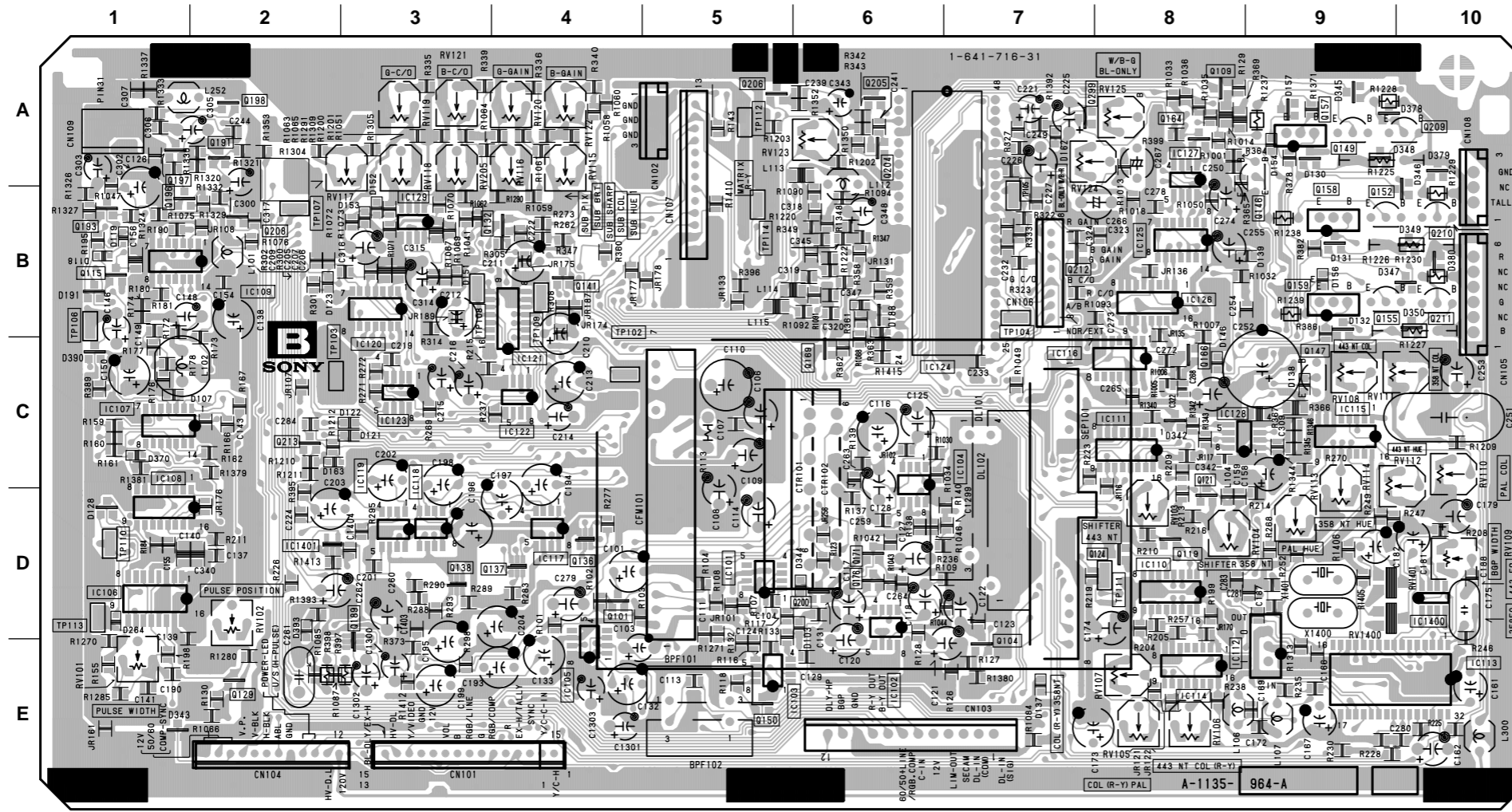


P BOARD WAVEFORMS



B BOARD

B BOARD (A SIDE)



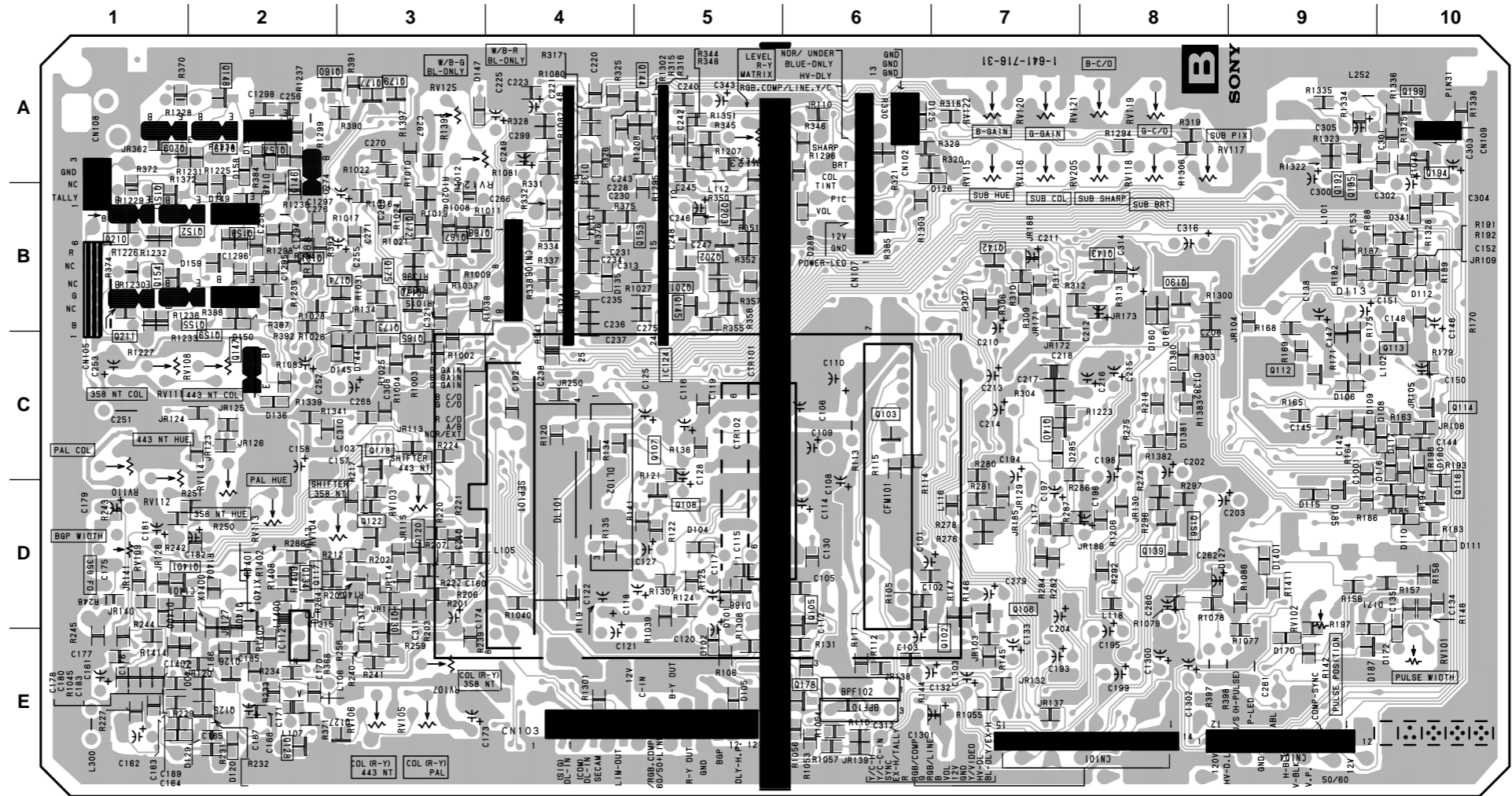
B -A SIDE-
SUFFIX: -31

IC501	B-1	D103	D-6
IC101	D-5	D107	C-2
IC102	E-6	D118	B-1
IC103	E-5	D119	B-1
IC104	C-7	D121	C-3
IC105	E-4	D122	C-3
IC106	D-1	D123	B-2
IC107	C-1	D128	D-1
IC108	C-1	D130	A-9
IC109	B-2	D131	B-9
IC110	D-8	D132	B-9
IC111	C-8	D137	E-7
IC112	E-8	D138	C-9
IC113	E-10	D139	B-9
IC114	E-8	D148	B-8
IC115	C-9	D151	B-3
IC117	D-4	D153	B-3
IC118	C-3	D154	A-9
IC118	C-7	D157	A-9
IC119	C-3	D158	B-9
IC120	C-3	D162	A-7
IC121	C-4	D163	C-2
IC122	C-4	D188	B-6
IC123	C-3	D191	B-1
IC124	C-6	D264	D-1
IC125	B-8	D342	C-8
IC127	A-8	D343	E-1
IC128	B-8	D344	D-6
IC128	C-8	D345	A-9
IC129	B-3	D346	A-10
IC1400	D-10	D347	B-9
IC1401	D-2	D348	A-10
		D349	B-10
		D350	B-10
		D370	C-1
		D378	A-10
		D379	A-10
		D380	B-10
		D390	C-1
		D393	D-2
Q101	D-4	RV101	E-1
Q104	E-7	RV102	D-2
Q109	A-8	RV103	D-8
Q115	B-1	RV104	D-9
Q119	D-8	RV105	E-8
Q121	C-8	RV106	E-8
Q124	D-8	RV107	E-8
Q129	E-2	RV108	C-9
Q132	B-3	RV109	D-10
Q136	D-4	RV110	C-10
Q137	D-4	RV111	C-9
Q138	D-3	RV112	C-10
Q141	B-4	RV113	C-9
Q147	C-9	RV114	C-9
Q148	B-9	RV115	A-4
Q149	A-9	RV116	A-4
Q150	A-5	RV117	B-2
Q152	B-9	RV118	A-3
Q155	B-9	RV119	A-3
Q157	A-9	RV120	A-4
Q158	B-9	RV121	A-3
Q159	B-9	RV122	A-4
Q164	A-8	RV123	A-5
Q166	C-8	RV124	B-7
Q169	C-6	RV125	A-8
Q171	D-6	RV205	A-3
Q176	D-6		
Q180	D-3	TP102	B-4
Q191	A-2	TP103	C-2
Q193	B-1	TP104	B-7
Q196	B-1	TP105	B-7
Q197	A-1	TP106	B-1
Q198	A-2	TP107	B-2
Q200	D-6	TP108	B-3
Q204	A-6	TP109	B-4
Q205	A-6	TP110	D-1
Q206	A-5	TP111	D-8
Q208	B-2	TP112	A-5
Q209	A-10	TP113	D-1
Q210	B-10	TP114	B-5
Q211	B-10		
Q212	B-7		
Q213	C-2		
Q299	A-7		

B BOARD (B SIDE)

IC112	E-2	D101	D-5
IC124	C-4	D102	E-5
		D104	D-5
Q101	B-2	D105	E-5
Q102	E-7	D106	C-9
Q103	C-6	D108	C-10
Q105	D-6	D109	C-9
Q107	C-5	D110	D-10
Q108	D-5	D111	D-10
Q108	D-7	D112	B-10
Q112	C-9	D113	B-9
Q113	C-10	D115	D-9
Q114	C-10	D116	C-10
Q116	D-10	D117	C-10
Q117	D-2	D120	E-2
Q118	C-3	D125	A-7
Q119	A-2	D126	B-7
Q120	D-3	D127	D-8
Q122	D-3	D129	E-1
Q123	D-3	D133	A-4
Q125	E-2	D134	B-4
Q126	E-2	D136	C-2
Q127	E-3	D144	C-3
Q128	E-2	D145	C-3
Q130	D-3	D147	A-3
Q134	D-2	D148	A-2
Q135	B-5	D149	B-2
Q139	D-8	D150	C-2
Q140	D-2	D158	A-2
Q140	C-7	D159	B-2
Q142	B-7	D160	C-8
Q143	B-8	D161	C-8
Q144	A-5	D170	E-9
Q145	B-5	D171	D-9
Q146	A-2	D172	E-10
Q147	C-2	D180	C-10
Q148	A-2	D185	D-9
Q151	B-1	D187	E-9
Q152	B-2	D188	D-5
Q153	B-2	D280	B-6
Q154	B-1	D285	C-7
Q155	B-2	D341	B-10
Q156	D-8	D1380	C-8
Q157	A-2	D1381	C-8
Q159	C-2	D1382	C-8
Q160	A-2	D1400	D-1
Q165	C-3	D1401	D-9
Q167	B-3		
Q168	B-3	RV101	E-10
Q170	B-3	RV102	D-9
Q172	B-3	RV103	D-3
Q173	B-3	RV104	D-2
Q174	B-3	RV105	E-3
Q175	B-3	RV106	E-3
Q177	A-3	RV107	E-3
Q178	E-6	RV108	C-1
Q179	A-3	RV109	D-1
Q190	B-8	RV110	D-1
Q192	B-9	RV111	C-1
Q194	A-10	RV112	D-1
Q195	B-9	RV113	D-2
Q199	A-10	RV114	C-2
Q201	B-5	RV115	A-7
Q202	B-5	RV116	A-7
Q203	B-5	RV117	A-9
Q208	A-1	RV118	A-8
Q210	B-1	RV119	A-8
Q211	C-1	RV120	A-7
Q1401	D-1	RV121	A-7
		RV122	A-7
		RV123	A-5
		RV124	A-3
		RV125	A-3
		RV205	A-7

B BOARD



B -B SIDE-
SUFFIX: -31

B MOUNT (1/3) VOLTAGES

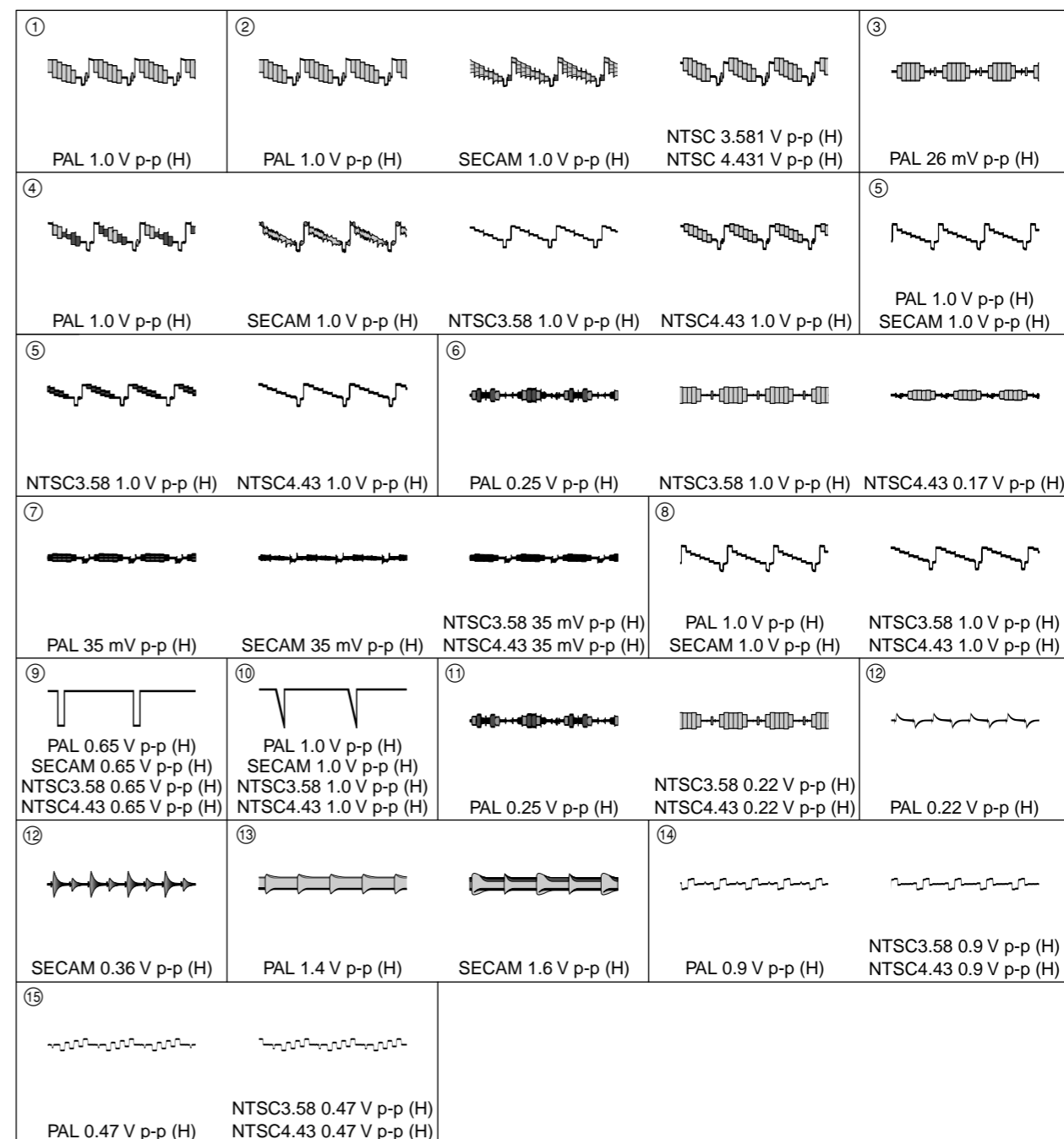
IC	Pin	IC		
		PAL	SECAM	NTSC
IC102	1	6.7	6.7	6.7
	2	7.3	7.3	0
	3	6.7	6.7	6.7
	4	0	0	0
	5	6.7	6.7	6.7
	6	12VA	12VA	12VA
	7	6	6	6
	8	GND	GND	GND
IC111	1	NC	NC	NC
	2	2.3	2.3	2.3
	3	2.3	2.3	2.3
	4	2.3	2.3	2.3
	5	2.5	2.5	2.5
	6	GND	GND	GND
	7	GND	GND	GND
	8	GND	GND	GND
	9	9.4	9.4	0
	10	11.5	11.5	0
	11	9.9	8.8	0
	12	11.5	11.5	0
	13	11.5	0	0
	14	11.5	11.6	0
	15	0	0	2.3
	16	GND	GND	GND
IC110	1	0.6	0.6	0
	2	0	0	2.3
	3	2	0	0
	4	2.2	2.2	0
	5	0	0	2.3
	6	GND	GND	GND
	7	GND	GND	GND
	8	GND	GND	GND
	9	9.5	9.5	0
	10	11.5	11.5	0
C113	1	2.8	2.8	2.8
	2	1.7	1.7	1.7
	3	2.3	2.3	2.3
	4	2.4	2.5	2.5
	5	3	3	3
	6	3	3	3
	7	4.3	4.3	4.3
	8	3	3	3
	9	NC	NC	NC
	10	2.9	2.9	2.9
	11	2.9	2.9	2.9
	12	2.6	2.6	2.6
	13	3.4	3.4	3.4
	14	GND	GND	GND
	15	3	3	3
	16	NC	NC	NC
17	NC	NC	NC	
18	5VA	5VA	5VA	
19	2.9	2.9	2.9	
20	0	0	0.8	
21	NC	NC	NC	
22	2.1	2.1	2.1	
23	2.1	2.1	2.1	
24	NC	NC	NC	
25	1.9	2.7	1.9	
26	2.8	2.8	2.8	
27	5VA	5VA	5VA	
28	4.5	4.5	4.5	
29	2.9	2.9	2.9	
30	3	3	3	
31	1.4	1.4	1.4	
32	NC	NC	NC	

IC	Pin	IC		
		PAL	SECAM	NTSC
IC114	1	2.6	2.6	2.6
	2	2.6	2.6	2.6
	3	2.6	2.6	2.6
	4	NC	NC	NC
	5	NC	NC	NC
	6	GND	GND	GND
	7	GND	GND	GND
	8	GND	GND	GND
	9	11.5	11.5	0
	10	11.5	11.5	0
	11	3.7	3.7	3.7
	12	3.9	3.9	3.9
	13	3.9	3.9	3.9
	14	NC	NC	NC
	15	3.6	3.6	3.6
	16	12VA	12VA	12VA
IC115	1	0.2	0.2	0.2
	2	0.3	0.3	0.3
	3	0.2	0.2	0.2
	4	0.4	0.4	0.4
	5	NC	NC	NC
	6	GND	GND	GND
	7	GND	GND	GND
	8	GND	GND	GND
	9	11.5	11.5	0
	10	11.5	11.5	0
	11	3.3	3.3	3.3
	12	3.1	3.1	3.1
	13	3.1	3.1	3.1
	14	NC	NC	NC
	15	2.9	2.9	2.9
	16	12VA	12VA	12VA

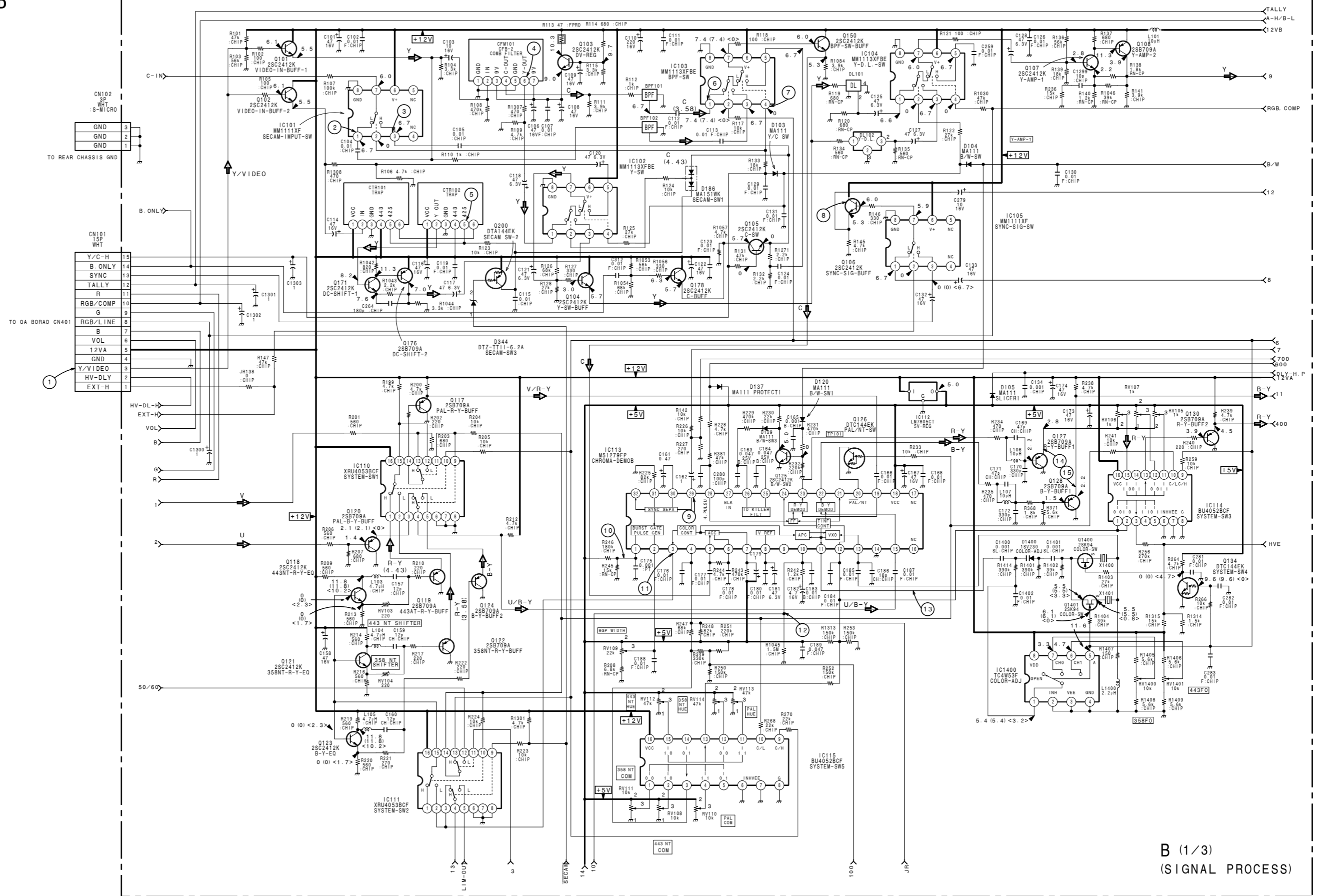
Q	Pin	TRANSISTOR		
		PAL	SECAM	NTSC
Q117	B	1.8	1.8	2.4
	C	GND	GND	GND
	E	2.4	2.4	3.1
Q119	B	0	0	1.7
	C	GND	GND	GND
	E	0.6	0.6	0
Q121	B	0	0	2.3
	C	11.9	11.9	10.2
	E	0	0	1.6
Q122	B	0	0	1.7
	C	2.3	0	0
	E	GND	GND	GND
Q124	B	0	0	1.6
	C	GND	GND	GND
	E	0	0	2.3
Q125	B	0	0	0
	C	5	5	5
	E	GND	GND	GND
Q126	B	9.6	9.6	0
	C	0	0	0.8
	E	GND	GND	GND
Q1400	G	0	0	1.6
	D	5.5	5.5	3.5
	S	0.7	0.7	2.0
Q1401	G	6.1	6.1	0
	D	5.4	5.4	3.3
	S	5.5	5.5	0.6

• All voltages are in V (volt).
• NC: No connection.

B (1/3) BOARD WAVEFORMS



B (1/3) BOARD



B (1/3) (SIGNAL PROCESS)

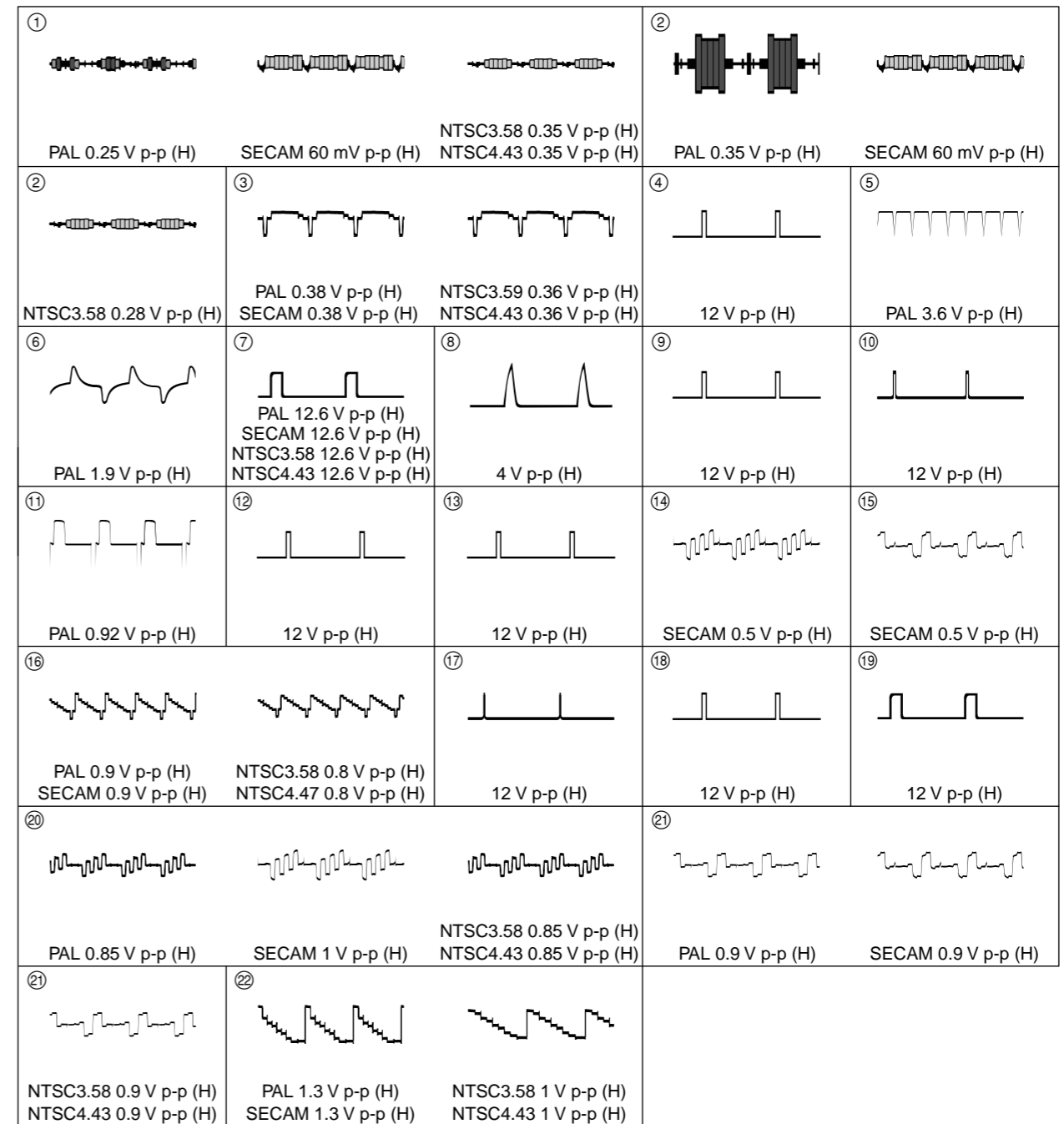
B MOUNT (2/3) VOLTAGES

IC	IC			
	PAL	SECAM	NTSC	
IC106	1	0	0	
	2	0.2	0.2	
	3	12VB	12VB	
	4	1.8	1.8	
	5	12VB	12VB	
	6	12	12	
	7	NC	NC	
	8	GND	GND	
	9	10.2	10.2	
	10	1.2	1.2	
	11	12	12	
	12	1.7	1.7	
	13	12VB	12VB	
	14	9.8	9.8	
	15	GND	GND	
	16	12VB	12VB	
IC108	1	0.3	0.5	
	2	GND	GND	
	3	GND	GND	
	4	0.4	0.4	
	5	0.4	0.4	
	6	GND	GND	
	7	GND	GND	
	8	GND	GND	
	9	8.2	8.2	
	10	5.7	5.7	
	11	9.8	0.5	
	12	0.5	0.5	
	13	0.3	0.3	
	14	0.2	0.5	
	15	0.2	0.5	
	16	12VB	12VB	
IC109	1	GND	GND	
	2	11.2	11.2	
	3	11.6	11.6	
	4	11.9	11.9	
	5	11.3	11.3	
	6	0.6	10.6	
	7	GND	GND	
	8	GND	GND	
	9	0.6	0.6	
	10	0.5	0.5	
	11	0.4	0.4	
	12	10.5	10.5	
	13	8.8	8.8	
	14	12VB	12VB	
	IC118	1	5.4	5.4
		2	2.8	2.8
3		5.4	5.4	
4		0	0	
5		5.4	5.4	
6		12VB	12VB	
7		5.7	5.7	
8		GND	GND	
IC120	1	5.1	5.1	
	2	5.1	5.1	
	3	5.1	5.1	
	4	5.1	5.1	
	5	0.4	0.4	
	6	8.3	8.3	
	7	GND	GND	
	8	12VB	2VB	
	9	12	12	
	10	4.8	4.8	
	11	5.1	5.1	
	12	0.5	0.5	
	13	0.4	0.4	
	14	12VB	12VB	

IC	IC		
	PAL	SECAM	NTSC
IC121	1	5.1	5.1
	2	5.1	5.1
	3	5.1	5.1
	4	5.1	5.1
	5	0	5.1
	6	GND	GND
	7	GND	GND
	8	GND	GND
	9	2	2
	10	2	2
	11	2	2
	12	5.1	5.1
	13	4.8	4.8
	14	5.1	5.1
	15	0	5.1
	16	12VB	12VB
IC122	1	4.8	4.8
	2	4.8	4.8
	3	4.8	4.8
	4	GND	GND
	5	5.1	5.1
	6	5.1	5.1
	7	5.1	5.1
	8	12VB	12VB
IC123	1	0.6	10.7
	2	2.5	2.5
	3	1.7	1.7
	4	GND	GND
	5	5.1	5.1
	6	5.1	5.1
	7	5.1	5.1
	8	12VB	12VB
IC128	1	3	3
	2	3	3
	3	2.9	2.9
	4	GND	GND
	5	5.3	5.3
	6	5	5
	7	10.4	9.0
	8	12VB	12VB
TRANSISTOR			
Q136	1	12VB	12VB
	2	5.7	5.7
	3	5.1	5.1
	4	10.5	10.5
	5	5.7	5.7
	6	5.1	5.1
Q137	1	12VB	12VB
	2	5.7	5.7
	3	5.1	5.1
	4	10.5	10.5
	5	5.7	5.7
	6	5.1	5.1
Q138	1	12VB	12VB
	2	5.7	5.7
	3	5.1	5.1
	4	10.5	10.5
	5	5.7	5.7
Q132	B	6	6
	C	1.7	1.7
	E	2.3	2.3

• All voltages are in V (volt).
• NC: No connection.

B (2/3) BOARD WAVEFORMS



B MOUNT (3/3) VOLTAGES

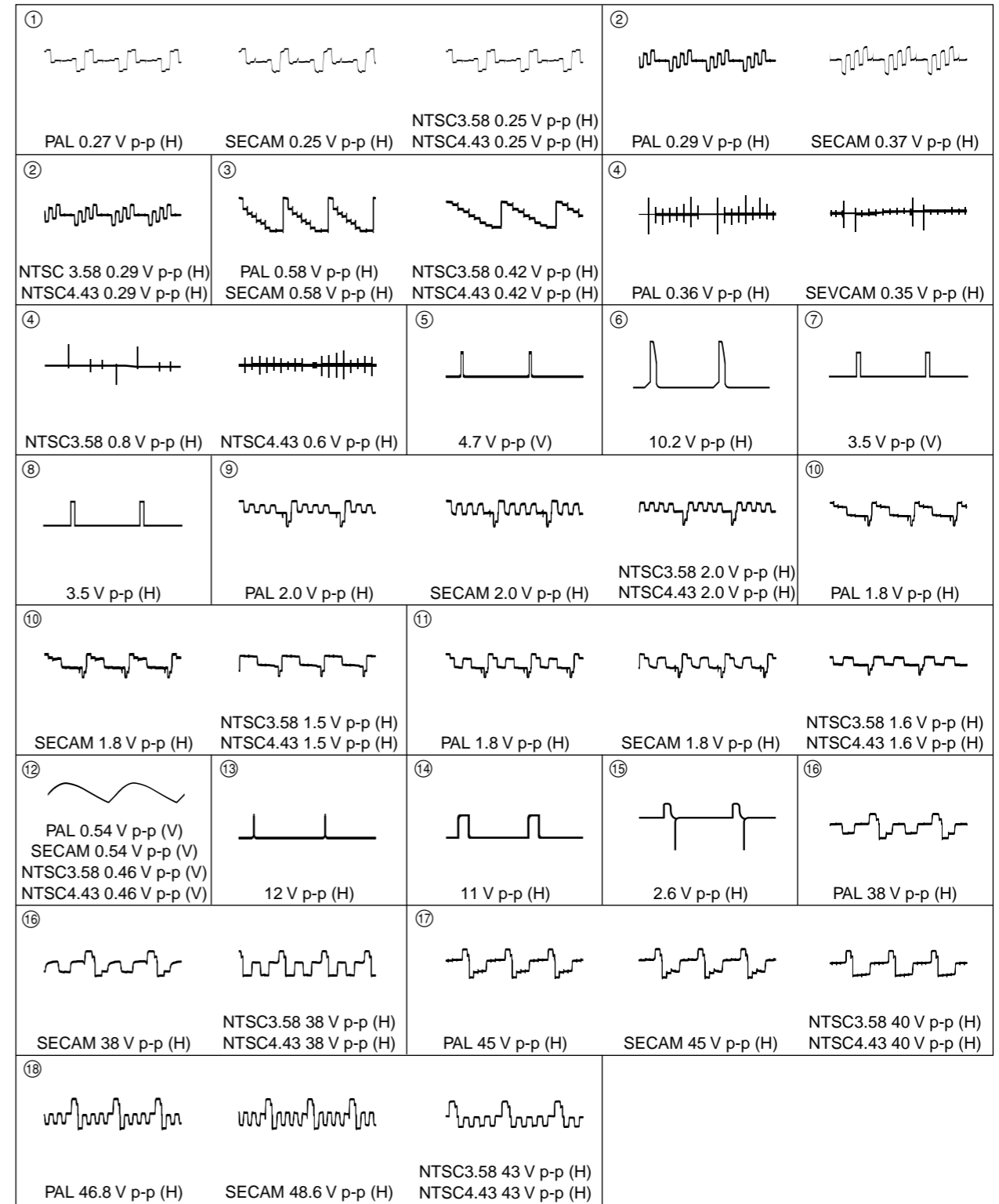
IC	IC			
	PAL	SECAM	NTSC	
IC116	1	1.4	1.4	
	2	1.1	1.1	
	3	1.6	1.6	
	4	1	1	
	5	1.7	1.7	
	6	GND	GND	
	7	GND	GND	
	8	NC	NC	
	9	NC	NC	
	10	1.4	1.4	
	11	0.9	0.9	
	12	1.6	1.8	
	13	1.6	1.8	
	14	12VA	12VA	
IC124	1	4.3	4.3	
	2	4.3	4.3	
	3	5.2	5.2	
	4	GND	GND	
	5	8.7	8.7	
	6	2.9	2.9	
	7	4.3	4.3	
	8	3.1	3.1	
	9	GND	GND	
	10	5.6	5.6	
	11	5.7	5.7	
	12	5.6	5.6	
	13	GND	GND	
	14	GND	GND	
	15	GND	GND	
IC125	1	1.1	1.1	
	2	1.4	1.4	
	3	1.4	1.4	
	4	1.1	1.1	
	5	0.7	0.7	
	6	0.7	0.7	
	7	GND	GND	
	8	1.1	1.1	
	9	1.2	1.2	
	10	1.2	1.2	
	11	1.1	1.1	
	12	0.7	0.7	
	13	0.7	0.7	
	14	12VA	12VA	
	IC126	1	1.4	1.4
2		1.4	1.4	
3		NC	NC	
4		1.6	1.6	
5		1.6	1.6	
6		GND	GND	
7		GND	GND	
8		GND	GND	
9		GND	GND	
10		10.7	10.7	
11		10.7	10.7	
12		1.4	1.4	
13		1.4	1.4	
14		1.4	1.4	
15		1.4	1.4	
16		12VA	12VA	
IC127	1	4.7	4.7	
	2	1.2	1.2	
	3	1.1	1.1	
	4	GND	GND	
	5	1.1	1.1	
	6	1.1	1.1	
	7	4.8	4.8	
	8	10.2	10.2	
	TRANSISTOR			
	Q109	B	2.5	2.5
		C	0.5	0.5
		E	GND	GND
	Q146	B	0.2	0.2
		C	112	112
		E	GND	GND
Q147	B	119.8	119.8	
	E	115.5	115.5	
	C	122.8	122.8	
Q148	B	84.3	84.3	
	C	96.5	96.5	
	E	98	98	
Q149	B	96.5	96.5	
	C	2.5	2.5	
	E	103.5	103.5	
Q151	B	93.2	93.2	
	C	96.5	96.5	
	E	97.8	97.8	
Q152	B	96.5	96.5	
	C	2.5	2.5	
	E	105	105	
Q154	B	93.2	93.2	
	C	99.2	99.2	
	E	101.2	101.2	
Q155	B	94.5	94.5	
	C	2.7	2.7	
	E	96.3	96.3	

IC	PAL			SECAM			NTSC		
	IC125	1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
2		1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
3		1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
4		1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
5		0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
6		0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
7		GND	GND	GND	GND	GND	GND	GND	GND
8		1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
9		1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
10		1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
11		1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
12		0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
13		0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
14		12VA	12VA	12VA	12VA	12VA	12VA	12VA	12VA
IC126	1	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
	2	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
	3	NC	NC	NC	NC	NC	NC	NC	NC
	4	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
	5	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
	6	GND	GND	GND	GND	GND	GND	GND	GND
	7	GND	GND	GND	GND	GND	GND	GND	GND
	8	GND	GND	GND	GND	GND	GND	GND	GND
	9	GND	GND	GND	GND	GND	GND	GND	GND
	10	10.7	10.7	10.7	10.7	10.7	10.7	10.7	10.7
	11	10.7	10.7	10.7	10.7	10.7	10.7	10.7	10.7
	12	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
	13	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
	14	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
	15	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
	16	12VA	12VA	12VA	12VA	12VA	12VA	12VA	12VA
IC127	1	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
	2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
	3	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
	4	GND	GND	GND	GND	GND	GND	GND	GND
	5	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
	6	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
	7	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
	8	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2

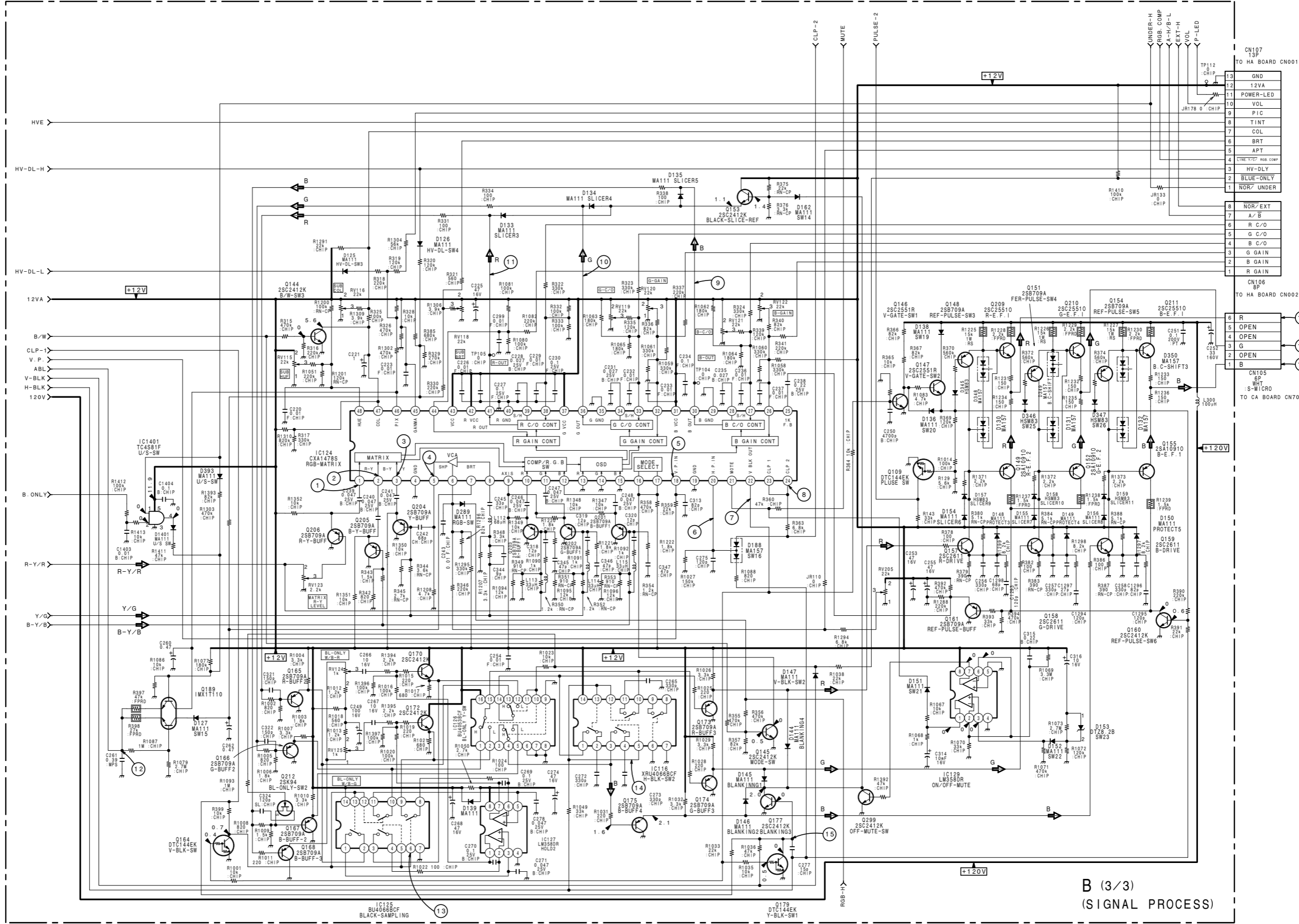
Q	PAL			SECAM			NTSC		
	Q165	B	0.7	0.7	0.7	0.7	0.7	0.7	0.7
C		GND	GND	GND	GND	GND	GND	GND	GND
E		1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
Q166	B	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
	C	GND	GND	GND	GND	GND	GND	GND	GND
	E	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
Q167	B	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
	C	GND	GND	GND	GND	GND	GND	GND	GND
	E	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Q168	B	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
	C	GND	GND	GND	GND	GND	GND	GND	GND
	E	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
Q170	B	2.4	2.1	2.1	2.1	2.1	2.1	2.1	2.1
	C	12VA	12VA	12VA	12VA	12VA	12VA	12VA	12VA
	E	1.7	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Q172	B	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
	C	12VA	12VA	12VA	12VA	12VA	12VA	12VA	12VA
	E	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
Q173	B	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
	C	GND	GND	GND	GND	GND	GND	GND	GND
	E	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
Q157	B	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
	C	96.5	96.5	96.5	96.5	96.5	96.5	96.5	96.5
	E	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
Q158	B	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
	C	96.5	96.5	96.5	96.5	96.5	96.5	96.5	96.5
	E	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
Q159	B	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
	C	94.9	94.9	94.9	94.9	94.9	94.9	94.9	94.9
	E	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
Q161	B	0	0	0	0	0	0	0	0
	C	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
	E	GND	GND	GND	GND	GND	GND	GND	GND
Q189	1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
	2	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
	3	0	0	0	0	0	0	0	0
	4	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3
	5	1.7	1.7	2.9	2.9	2.9	2.9	2.9	2.9
	6	4.8	4.8	3.7	3.7	3.7	3.7	3.7	3.7
Q201	B	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
	C	GND	GND	GND	GND	GND	GND	GND	GND
	E	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
Q202	B	2	2	2	2	2	2	2	2
	C	GND	GND	GND	GND	GND	GND	GND	GND
	E	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
Q203	B	2	2	2	2	2	2	2	2
	C	GND	GND	GND	GND	GND	GND	GND	GND
	E	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
Q204	B	2	2	2	2	2	2	2	2
	C	GND	GND	GND	GND	GND	GND	GND	GND
	E	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
Q205	B	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
	C	GND	GND	GND	GND	GND	GND	GND	GND
	E	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
Q206	B	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
	C	GND	GND	GND	GND	GND	GND	GND	GND
	E	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
Q210	B	97.8	97.8	102.9	102.9	102.9	102.9	102.9	102.9
	C	117.8	117.8	117.8	117.8	117.8	117.8	117.8	117.8
	E	106.5	106.5	106.5	106.5	106.5	106.5	106.5	106.5
Q211	B	96.2	96.2	96.2	96.2	96.2	96.2	96.2	96.2
	C	119.4	119.4	119.4	119.4	119.4	119.4	119.4	119.4
	E	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6
Q212	G	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
	D	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
	S	1	1	1	1	1	1	1	1

• All voltages are in V (volt).
• NC: No connection.

B (3/3) BOARD WAVEFORMS



B (3/3) BOARD



CH107
13P
TO HA BOARD CN001

13	GND
12	12VA
11	POWER-LED
10	VOL
9	PIC
8	TINT
7	COL
6	BRT
5	APT
4	HV-DLY
3	BLUE-ONLY
2	NOR/ UNDER

CH106
8P
TO HA BOARD CN002

8	NOR/EXT
7	A/B
6	R C/O
5	G C/O
4	B C/O
3	G GAIN
2	B GAIN
1	R GAIN

CH105
6P
S-MICRO
TO CA BOARD CN701

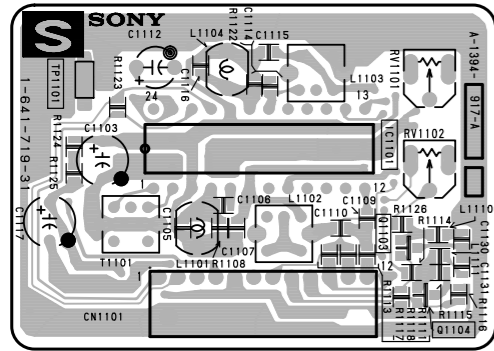
6	R
5	OPEN
4	OPEN
3	G
2	OPEN
1	B

B (3/3)
(SIGNAL PROCESS)

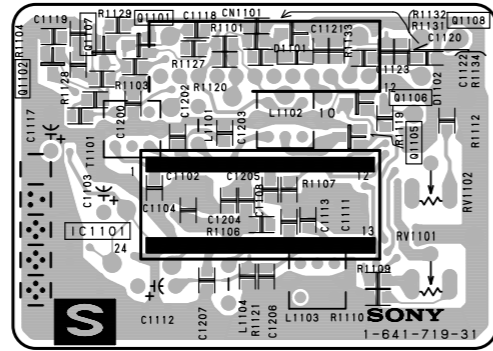
B-VS9614<U/C>-B-3

S BOARD

1



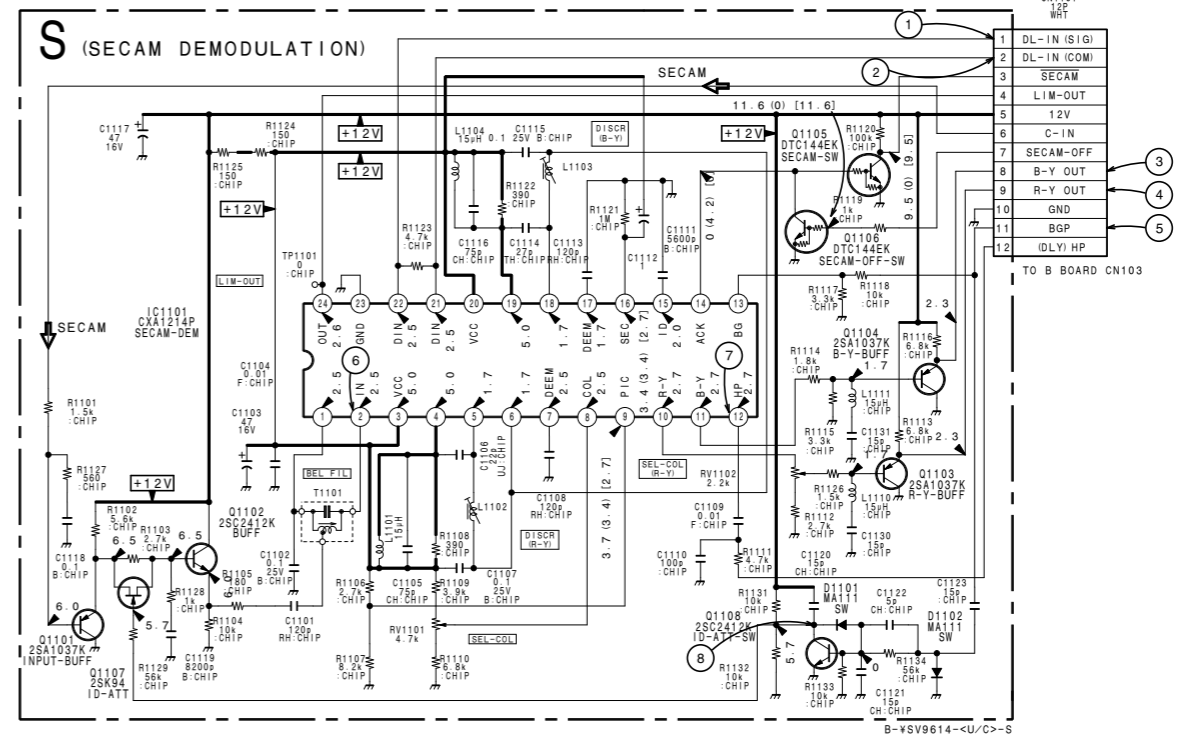
S - A SIDE-
SUFFIX: -31



S - B SIDE-
SUFFIX: -31

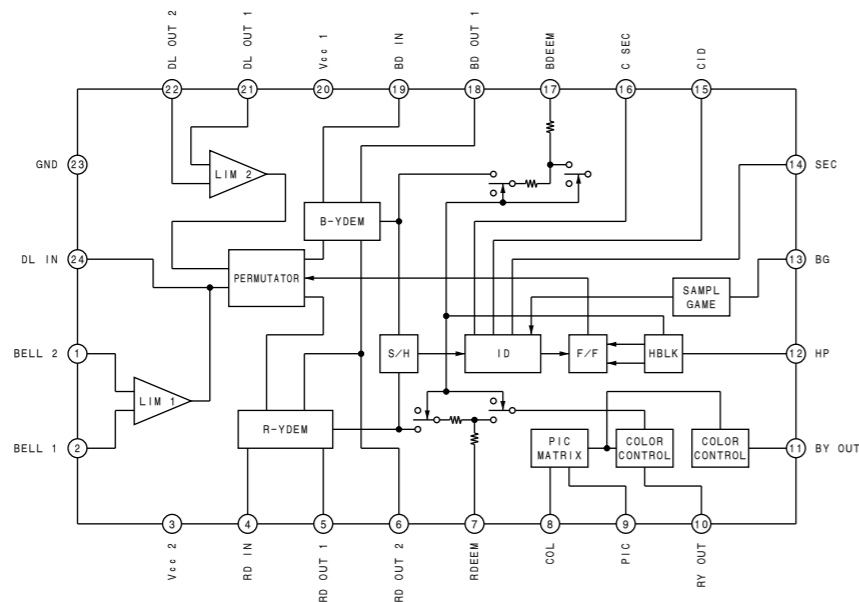
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3



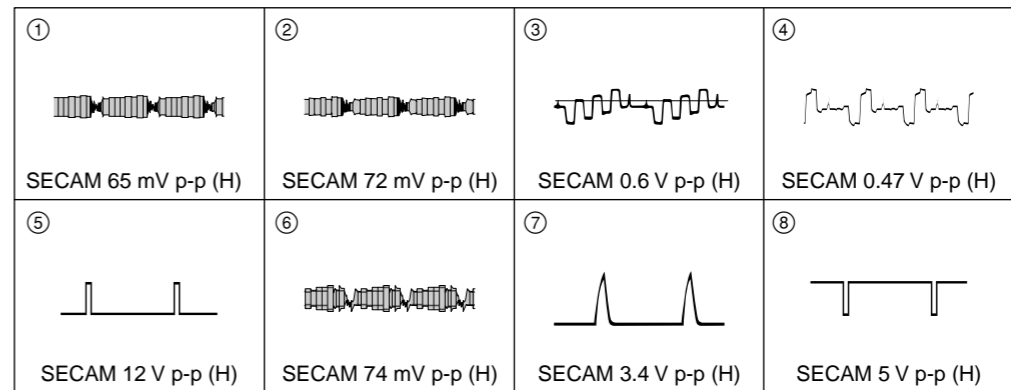
S BOARD IC1101 CXA1214P

4



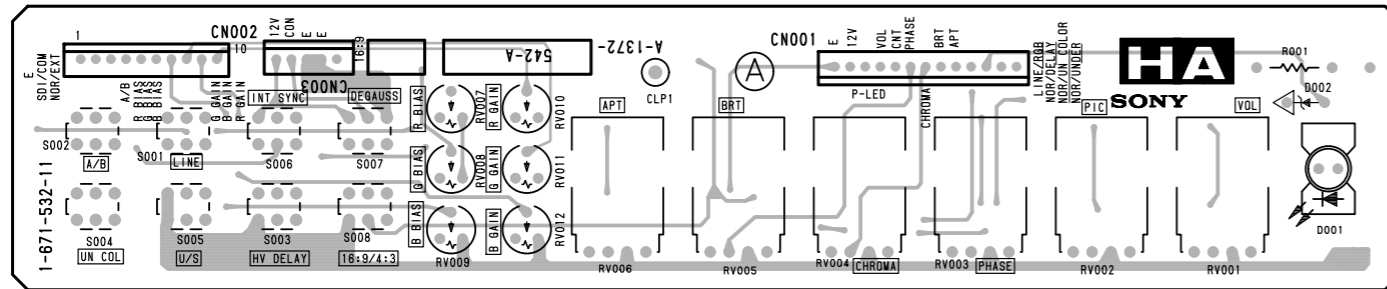
5

S BOARD WAVEFORMS

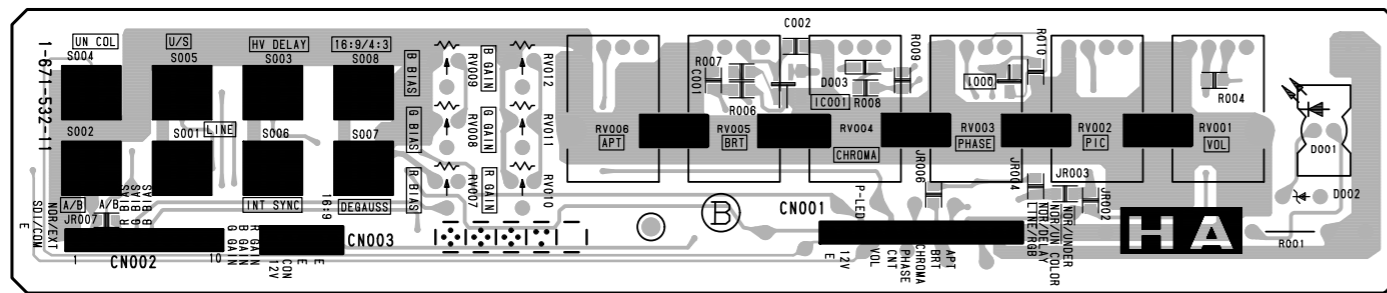


HA BOARD

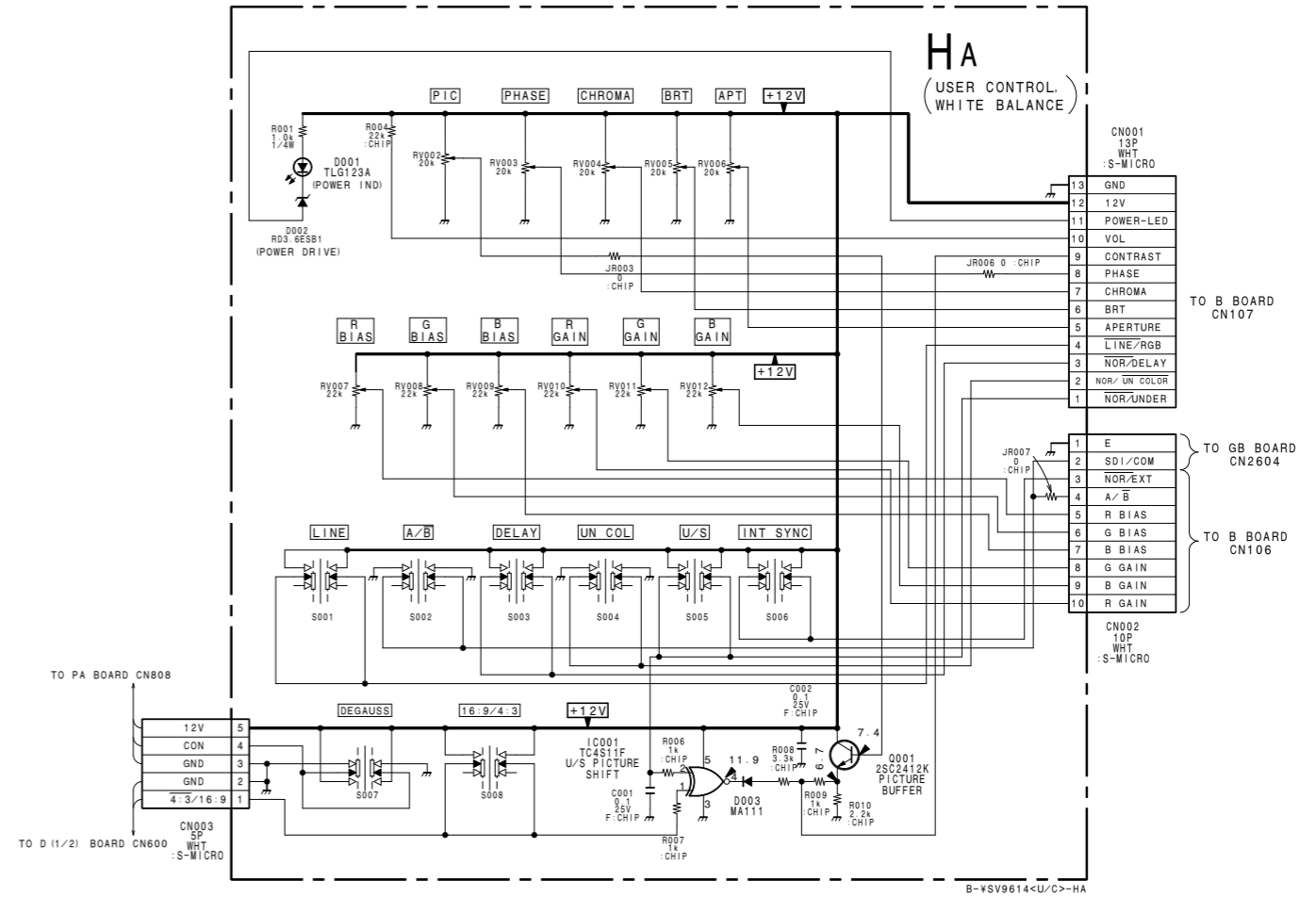
HA BOARD



HA -A SIDE-
SUFFIX: -11

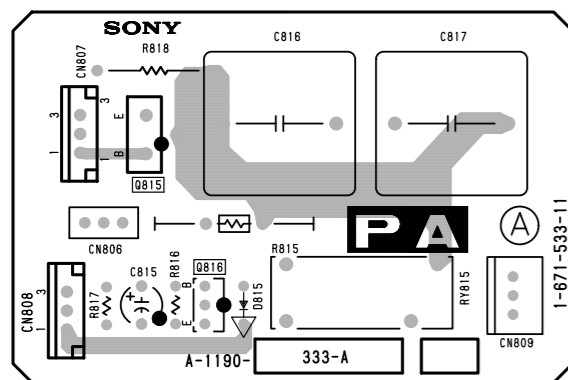


HA -B SIDE-
SUFFIX: -11

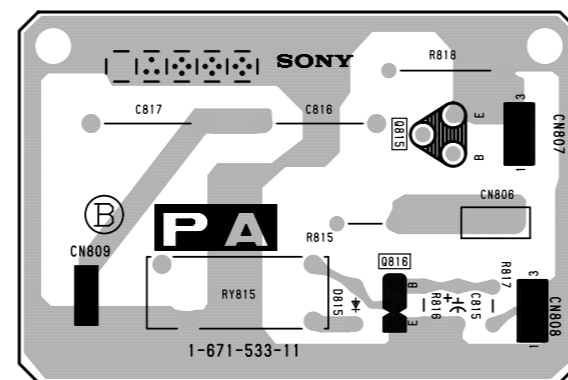


PA BOARD

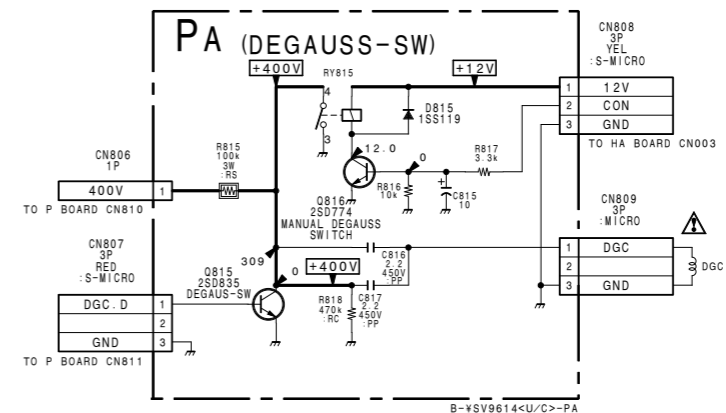
PA BOARD



PA -A SIDE-
SUFFIX: -11

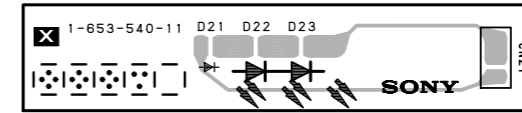
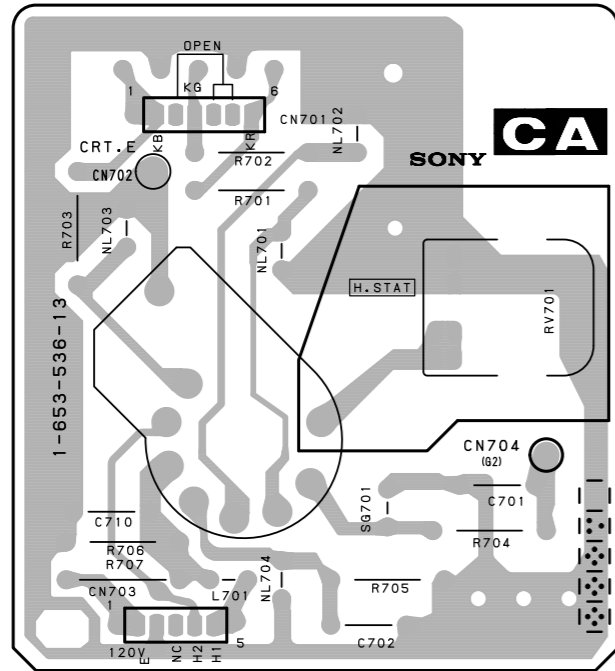


PA -B SIDE-
SUFFIX: -11

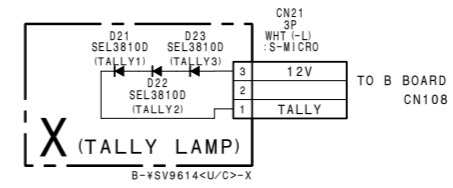


CA BOARD

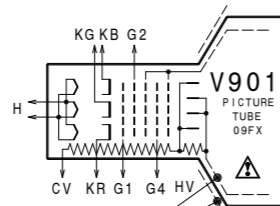
X BOARD



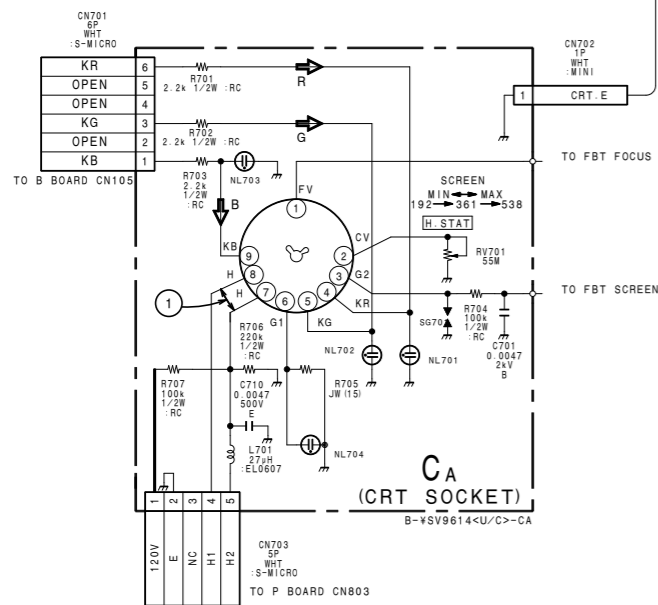
X -B SIDE-
SUFFIX: -11



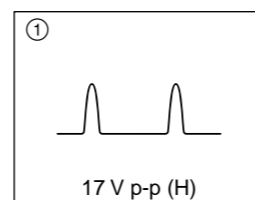
CA -B SIDE-
SUFFIX: -13



TO P BOARD
T802 HV



CA BOARD WAVEFORMS



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